

## 605 SUPER J

11/01/90

		LIST	D.M. NET (25 & 4)	DLR. NET (17 & 4)
<b>REQUIRED ITEMS/FEATURES</b>				
605J-003	605 SUPER J BALER complete with Hydraulic Twine Wrap, Haysaver Wheels*, Twisted Belts, Double Arm Twine Wrap, Flotation Tires, and Equal Fill Monitor System.....	\$17,130.00	\$12,333.60	\$13,649.18
605J-005	605 SUPER J BALER complete, same as above except with electric twine wrap, Auto Tie/Equal Fill Monitor System (includes auto twine wrap, left/right time drive indicator, near full/full indicator, tailgate locked indicator).....	\$17,611.00	\$12,679.92	\$14,032.44
605J-009	605J AUTONEAVE .....	\$19,611.00	\$14,119.92	\$15,626.04
<b>NON-REQUIRED ITEMS/FEATURES</b>				
<b>Factory Installed Options</b>				
605J-011	Electric Twine Wrap (use with -003 only).....	\$ 131.00	\$ 94.32	\$ 104.38
605J-013	Wheel/Tire assembly (11L x 15 highway rated).....	\$ -79.00	\$ -56.88	\$ -62.95
605J-018	Belt Traction Roller (without net wrap).....	\$ 330.00	\$ 237.60	\$ 262.94
605J-023	Belt Traction Roller (use with net wrap).....	\$ 330.00	\$ 237.60	\$ 262.94
605J-024	Single Arm Twine Wrap.....	\$ -45.00	\$ -32.40	\$ -35.86
605J-030	1000 RPM PTO.....	\$ 109.00	\$ 78.48	\$ 86.85
605J-042	Bale Kicker (manual) (requires separate valve).....	\$ 921.00	\$ 663.12	\$ 733.85
605J-043	Net Wrap (requires Auto Tie/Equal Fill Monitor System).....	\$ 3800.00	\$2736.00	\$3027.84
605J-046	Auto Tie Monitor System w/o Equal Fill (use w/ -005 only).....	\$ -200.00	\$ -144.00	\$ -159.36
605J-047	Spiral Roller and Knife.....	\$ <del>250.00</del> 350.00	\$ <del>252.00</del> 252.00 ok	\$ <del>278.88</del> 278.88 ok
605J-050	Double Tailight w/ wiring (check state laws for requirements).....	\$ 44.00	\$ 31.68	\$ 35.06
605J-052	Safety Chain (check state laws for requirements).....	\$ 38.00	\$ 27.36	\$ 30.28
605J-055	Bale Restrictor Plates.....	\$ 71.00	\$ 51.12	\$ 56.57
605J-070	Pickup Curtain.....	\$ 85.00	\$ 61.20	\$ 67.73
605J-080	Pickup Gauge Wheel.....	\$ 222.00	\$ 159.84	\$ 176.89
<b>Field Installed Options</b>				
605J-044	Net Wrap* (requires 1990 Auto Tie/Equal Fill Monitor System).....	\$ 3520.00	\$2534.40	\$2804.74
AK00-117	Bale Restrictor Plates.....	\$ 28.00	\$ 20.16	\$ 22.31
AK00-128	Pickup Curtain*.....	\$ 41.00	\$ 29.52	\$ 32.67
AK00-134	Pickup Gauge Wheel*.....	\$ 183.00	\$ 131.76	\$ 145.81
AK00-161	Spiral Roller and Knife*.....	\$ 360.00	\$ 259.20	\$ 286.85
AK00-165	Bale Kicker* (manual) (requires separate valve).....	\$ 746.00	\$ 537.12	\$ 594.41
AK01-145	Single Arm Twine Wrap*.....	\$ 180.00	\$ 129.60	\$ 143.42
AK08-130	Belt Traction Roller Kit (extra 14" belting not included).....	\$ 155.00	\$ 111.60	\$ 123.50
<b>Standard Baler Removals</b>				
605J-016	Twisted Belts.....	\$ -285.00	\$ -205.20	\$ -227.09
605J-048	Equal Fill Monitor System (for -003 only).....	\$ -334.00	\$ -240.48	\$ -266.13

\* Some assembly required as not completely assembled for shipping purposes.

BEST AVAILABLE COPY



**Net Wrap**

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# **Operator's Manual**

**EXHIBIT**

**B**

REKAD-Beyenne

Vermeer Manufacturing Company  
P.O. Box 200 • Pella, Iowa 50219

**Vermeer**

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## INTRODUCTION

Welcome to our ever-growing family of Vermeer owners. We are confident that the dependable and economical performance of this unit will prove to you that you have made a wise choice.

This manual explains the proper operation of your Vermeer Net Wrap. Following these instructions will insure the best possible performance from the machine. Study and understand these instructions thoroughly before operating the machine. Service information is also included in this manual. We recommend that this manual be readily available for reference at all times. Consult your Vermeer dealer if you don't understand any of the instructions in this manual.

Vermeer Manufacturing Company reserves the right to make changes in design or specifications, add improvements, or discontinue the model at any time without notice or obligation. The 1220 Brush Chipper is designed and manufactured by Vermeer Manufacturing Company, AT Division, Box 200, Pella, Iowa 50219, 515-628-3141.

It is very important that you record the serial number of your Net Wrap. This information will be very helpful when ordering parts or if your Net Wrap is stolen. For your convenience and reference, fill in the serial number information below.

Net Wrap Serial Number \_\_\_\_\_

**Use only authorized parts for repair or replacement.**

A copy of this manual is supplied with each machine.

Printing Date: July 1990

NET WRAP  
DELIVERY AND SERVICE REPORT

INSTRUCTIONS: Before delivering the machine, check the following items carefully and make corrections when necessary. Place an "X" in the blank as you check each item and find it to be acceptable.

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- ☐ Check the machine for shortage or damage in transit.
- ☐ Check all hydraulic components for leaks.
- ☐ Check the drive belts for proper tension.
- ☐ Check all shields for installation and condition.
- ☐ Check the machine for proper lubrication.
- ☐ Check the condition of all decals.
- ☐ Check all phases of operation.

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## SAFETY INSTRUCTIONS



This symbol, used throughout this manual and on the safety decals, calls attention to the safety instructions. These instructions are of great importance. Read them carefully and obey them.

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Your safety is of great importance to Vermeer Manufacturing Company. We have provided decals, shields, and other safety features for your protection. In addition, we ask you to be a careful operator and to use and service your Vermeer equipment properly.

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**WARNING:** Carefully read and follow the instructions given below and contained elsewhere in this manual and in the Baler owner's manual before attempting to operate this machine.

- Read and follow all instructions contained in:
  - this addendum sheet.
  - The I or J baler operator's manual.
  - the decals placed on the machine.
- Always disengage the power to the baler and shut off the tractor engine before servicing, inspecting, inserting or removing the net wrap from the net wrap attachment.
- Do not try to feed the net wrap into the rotating feed rollers. The net wrap feed rollers can pull in the net wrap or other material faster than you can let go.
- Keep hands and fingers away from the knife edges. The upper knife can move suddenly. The knives can cause serious injury including cutting off fingers.
- Hydraulic fluid under pressure can penetrate the skin and cause serious personal injury, blindness, or death. Fluid leaks, under pressure, may not be visible. Use a piece of cardboard or wood to find leaks; never use your bare hand. Wear safety glasses for eye protection. If any fluid is injected into the skin, it must be surgically removed within a few hours by a doctor familiar with this type of injury.
- Relieve all pressure in the hydraulic system before disconnecting the lines or performing other work on the system. Some residual pressure will probably remain in the toggle roller hydraulic circuit due to the lock valve. When loosening fittings in hoses where residual pressure may exist, slowly loosen the fitting until oil begins to leak. Wait for leaking to stop before disconnecting fittings. Make sure all connections are tight and the hoses are in good condition before applying pressure to the system.

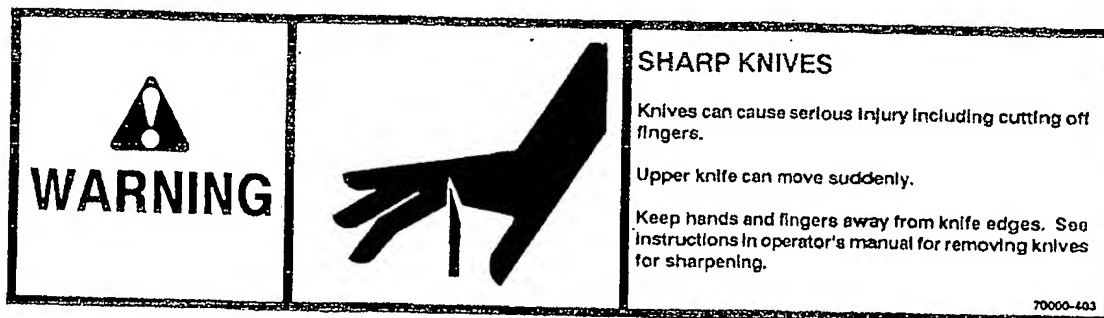
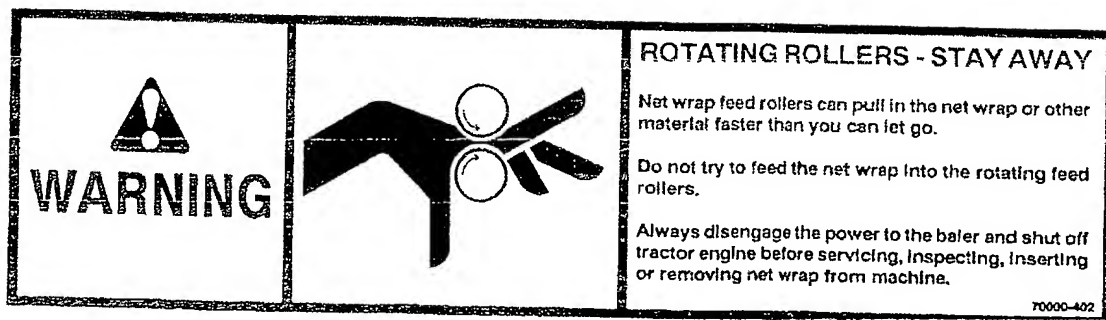
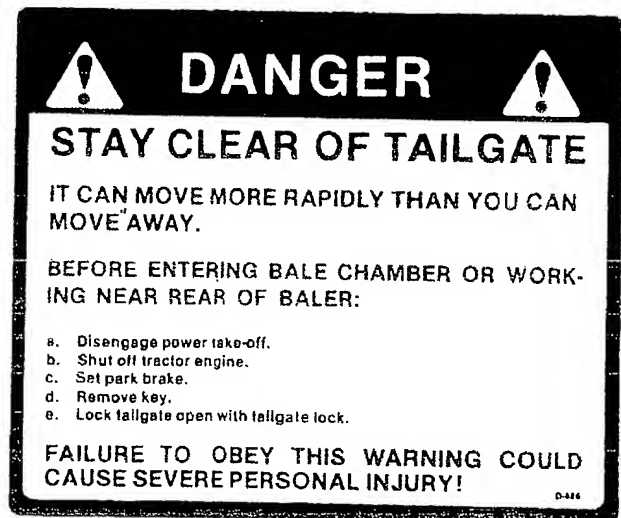
## SAFETY INSTRUCTIONS

### SAFETY DECALS

Safety decals located on your machine contain important and useful information that will help you operate your equipment safely. Each of these safety decals is shown below and in the parts book under "decals assembly." All safety decals also appear elsewhere in the parts manual where they are displayed with other assemblies of which they are a part.

To assure that all decals remain in place and in good condition, observe the following instructions:

- Keep the decals clean. Use soap and water - not mineral spirits, abrasive cleaners, and other similar cleaners that will damage the decal.
- Replace any damaged or missing decals. When applying decals, the surface temperature of the metal must be at least 40°F (5°C). The metal must also be clean and dry.
- When replacing a machine components with a decal attached, replace the decal, also.
- Purchase replacement decals from your Vermeer dealer.





### HOW THE NET WRAP SYSTEM WORKS

The net wrap system starts automatically when the bale reaches full size and the VCS system is in automatic mode or when the net wrap start button is depressed. The feed roller drive belt will engage and the brake will release, feeding net wrap into the bale chamber. At the same time, the bale forming belt guides near the toggle roller will drop down out of the way of the net wrap. When the bale grabs the net wrap, the feed roller drive belt will disengage, but the brake will not be reapplied. This lets the feed rollers free wheel so that the bale can pull the net wrap into the bale chamber as needed. When there is enough net wrap on the bale, as determined by the setting of the net wrap density control knob, the brake is reapplied to the feed roller drive. This causes the net wrap to be pulled tight. As the net wrap tightens, a knife swings around and cuts the net wrap with the help of a second, stationary knife. The knife is pulled quickly by a spring for part of its travel, causing it to be moving very quickly when it cuts the net wrap. The wrapping indicator light will flash briefly and go out, signaling the operator to disengage the tractor's PTO. Using the auxiliary hydraulics of the tractor, raise the tailgate to eject the bale. The toggle roller in the tailgate lifts before the tailgate is raised. This disengages the net wrap feed belts to prevent the possibility of the belts unwrapping or damaging the net wrap.

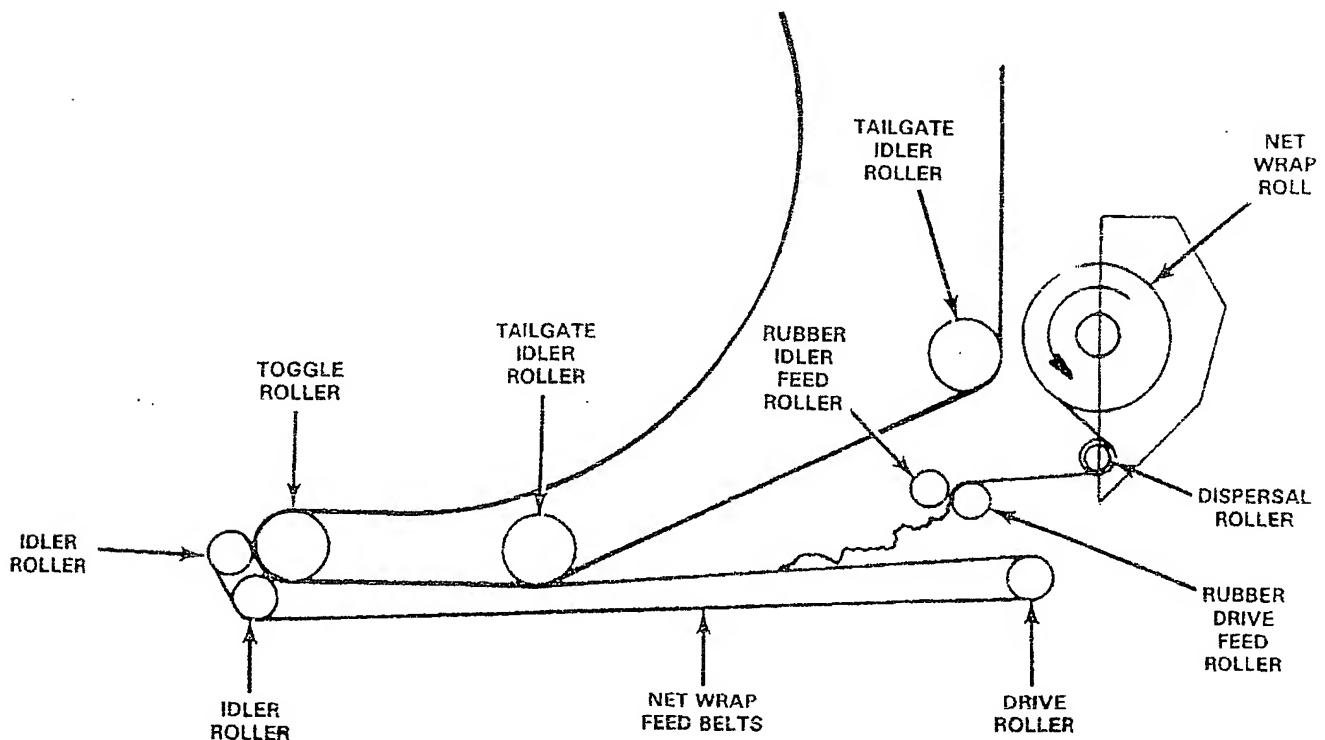


Figure A - Terminology

## CONTROLS ORIENTATION - J BALER

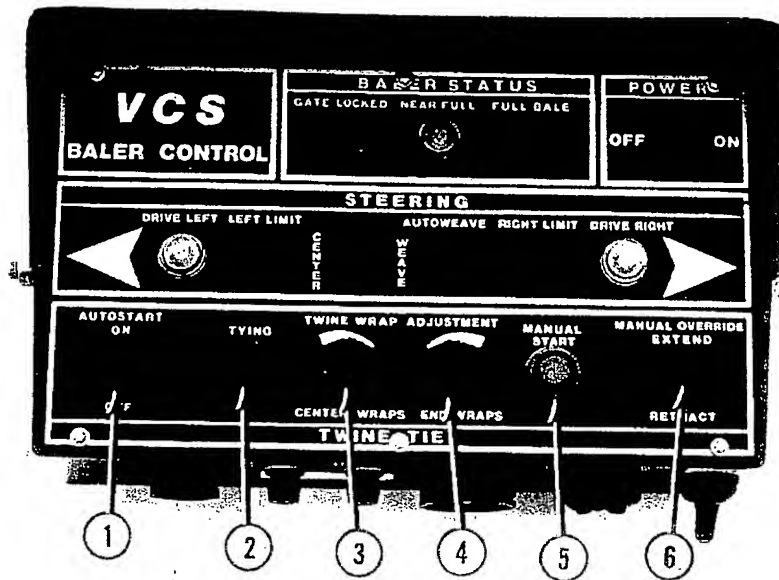


Figure B - J Baler VCS Control Box

**NOTE:** Your VCS control box can be used to control either the optional net wrap or the standard twine tie. The controls are labelled for the standard twine tie. In the control orientation instructions below, some controls have been renamed. The original names are shown in parentheses.

### 1. AUTOSTART CONTROL SWITCH:

Push the switch down for manual start control of the net wrap. Push the switch up to place the net wrap in automatic start mode. In automatic mode, the net wrap operates automatically two seconds after the bale reaches full size.

### 2. WRAPPING INDICATOR LIGHT (TYING)

The red light will glow when the net wrap is operating in automatic mode. The light will flash briefly when the net wrap starts and stops its wrapping cycle. If the light flashes continuously, the net wrap is malfunctioning. If the light flashes continuously while you are wrapping the bale, the net wrap has jammed or is not feeding across the full width of the bale.

### 3. NET WRAP FEED CONTROL KNOB (CENTER WRAPS)

This knob controls the amount of time the net wrap feed rollers and belts drive the net wrap into the bale chamber.

**IMPORTANT:** The net wrap must be driven long enough so that the bale grabs the wrap. The net wrap drive must disengage when the bale grabs the net wrap because the bale pulls the net wrap faster than the net wrap drive.

Place the knob in the center (white line at 12 o'clock). If the bale does not grab the net wrap, turn the knob counter-clockwise. If the net wrap is being pulled apart, turn the knob clockwise.

### CONTROLS ORIENTATION - J BALER (CONT.)

#### 4. NET WRAP DENSITY CONTROL KNOB (*END WRAPS*)

This knob controls the length of time the bale gets wrapped. The longer the time, the more layers of wrap will be placed on the bale. Normal bales should have 2 1/2 to 3 layers of wrap.

The number of wraps on a bale will be affected by bale size and PTO speed. Be sure to use a consistent PTO speed when wrapping the bale.

Start with the knob rotated fully counter-clockwise for approximately 2 1/2 to 3 layers of wrap on a full size bale at standard PTO rpm.

#### 5. MANUAL START BUTTON

In automatic mode, the net wrap will start automatically whenever the bale reaches desired size or full size. The start button is used if you want to wrap a partial bale or if the auto start switch is in the off position. During the wrapping operation, the indicator light #2 will be lit.

#### 6. MANUAL OVERRIDE CONTROL SWITCH

This switch can be used to manually control the net wrap during troubleshooting. Push the switch up to move the net wrap forward through its cycle. Push the switch down to move the net wrap backward through its cycle.

**NOTE:** If the net wrap is wrapping when the switch is moved, the automatic cycle of the net wrap will be canceled. Whenever the net wrap is manually moved forward, reset it to the home position before baling. Reset the net wrap to the home position by holding the switch down until the indicator lights dim. The lights will dim when the actuator reaches the end of its stroke.

Do not use this switch to try to wrap a bale. Either place the autostart switch #1 in automatic or use the manual start button #5.

## CONTROLS ORIENTATION - I BALER



Figure C - I Baler VCS Control Box

**NOTE:** Your VCS control box can be used to control either the optional net wrap or the standard twine tie. The controls are labelled for the standard twine tie. In the control orientation instructions below, some controls have been renamed. The original names are shown in parentheses.

### 1. AUTOSTART CONTROL SWITCH

Push the switch to the right for manual start control of the net wrap. Push the switch to the left to place the net wrap in automatic start mode. In automatic mode, the net wrap operates automatically two seconds after the bale reaches full size.

### 2. WRAPPING INDICATOR LIGHT (*TYING*)

The red light will glow when the net wrap is operating in automatic mode. The light will flash briefly when the net wrap starts and stops its wrapping cycle. If the light flashes continuously, the net wrap is malfunctioning. If the light flashes continuously while you are wrapping the bale, the net wrap has jammed or is not feeding across the full width of the bale.

### 3. NET WRAP FEED CONTROL KNOB (*CENTER WRAPS*)

This knob controls the amount of time the net wrap feed rollers and belts drive the net wrap into the bale chamber.

**IMPORTANT:** The net wrap must be driven long enough so that the bale grabs the wrap. The net wrap drive must disengage when the bale grabs the net wrap because the bale pulls the net wrap faster than the net wrap drive.

Place the knob in the center (white line at 12 o'clock). If the bale does not grab the net wrap, turn the knob counter-clockwise. If the net wrap is being pulled apart, turn the knob clockwise.

### CONTROLS ORIENTATION - I BALER (CONT.)

#### 4. NET WRAP DENSITY CONTROL KNOB (*END WRAPS*)

This knob controls the length of time the bale gets wrapped. The longer the time, the more layers of wrap will be placed on the bale. Normal bales should have 2 1/2 to 3 layers of wrap.

The number of wraps on a bale will be affected by bale size and PTO speed. Be sure to use a consistent PTO speed when wrapping the bale.

Start with the knob rotated fully counter-clockwise for approximately 2 1/2 to 3 layers of wrap on a full size bale at standard PTO rpm. Rotate the knob counter-clockwise to increase the number of wraps. Rotate the knob clockwise to decrease the number of wraps.

#### 5. MANUAL START BUTTON

In automatic mode, the net wrap will start automatically whenever the bale reaches desired size or full size. The start button is used if you want to wrap a partial bale or if the auto start switch is in the off position. During the wrapping operation, the indicator light #2 will be lit.

#### 6. MANUAL OVERRIDE CONTROL SWITCH

This switch can be used to manually control the net wrap during troubleshooting. Push the switch up to move the net wrap forward through its cycle. Push the switch down to move the net wrap backward through its cycle.

**NOTE:** If the net wrap is wrapping when the switch is moved, the automatic cycle of the net wrap will be canceled. Whenever the net wrap is manually moved forward, reset it to the home position before baling. Reset the net wrap to the home position by holding the switch down until the indicator lights dim. The lights will dim when the actuator reaches the end of its stroke.

Do not use this switch to try to wrap a bale. Either place the autostart switch #1 in automatic or use the manual start button #5.

## PRE-STARTING INSPECTION INSTRUCTIONS

Prior to starting the tractor's engine, the operator should check the following items in the net wrap system. Any items that are worn, broken, missing, or needing adjustment must be serviced before operating the baler.



**WARNING:** Before inspecting the machine, use the normal shutdown procedure in the baler operator's manual.

Inspect the following:

- Condition of net wrap feed belts.
- Condition of feed roller drive belt.
- Condition of knives.
- Condition of sensor switches and wiring.
- Condition and presence of all shields.
- Hydraulic components for leaks or damage.



**WARNING:** Hydraulic fluid under pressure can penetrate the skin and cause personal injury, blindness, or death. Fluid leaks, under pressure, may not be visible. Use a piece of cardboard or wood to find leaks; never use your bare hand. Wear safety glasses for eye protection. If any fluid is injected into the skin, it must be surgically removed within a few hours by a doctor familiar with this type of injury.

## NORMAL SHUTDOWN PROCEDURE

For your own safety and the safety of others, you must use the following normal shutdown procedure before dismounting from the tractor for any reason, including servicing, cleaning, or inspecting the baler or the net wrap attachment. A variation of the following procedure may be used if so instructed within this manual or your tractor manual, or if an extreme emergency requires it.

1. Disengage power to the ground drive.
2. Disengage power take-off (PTO).
3. Shut off power to the VCS baler control box.
4. Set the park brake.
5. Shut off the engine and remove the key.
6. If working in the bale chamber, lock the tailgate open as described in your baler operator's manual.

## OPERATING INSTRUCTIONS

### LOADING THE NET WRAP

1. Open the rear shield as shown in Figure G.
2. Insert the support tube through the roll of net wrap. Place the net wrap in position in the rear shield so that the leading edge of the net wrap comes up around the back of the net wrap and over the top toward the baler. Refer to Figure D.

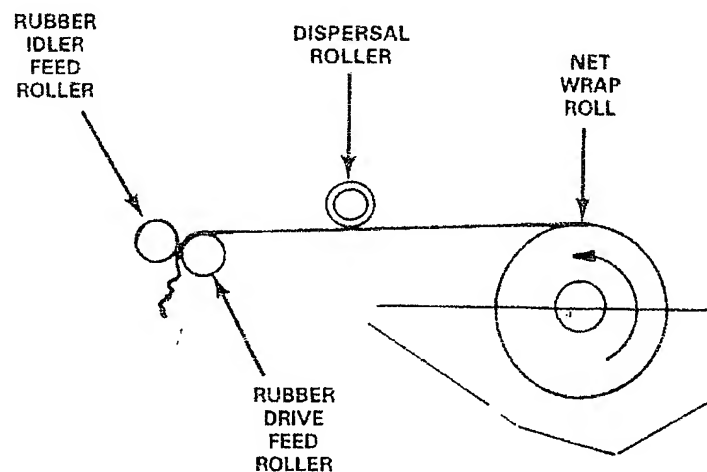


Figure D

3. Take the leading edge of the net wrap and bunch it together as shown in Figure E. If you experience difficulty starting the net wrap when bunched as shown in Figure E, loop the net wrap over as shown in Figure F. The technique shown in Figure E seems to be easier for most people, but the technique shown in Figure F is also acceptable.

OPERATING INSTRUCTIONS (CONT.)

LOADING THE NET WRAP (CONT.)



Figure E

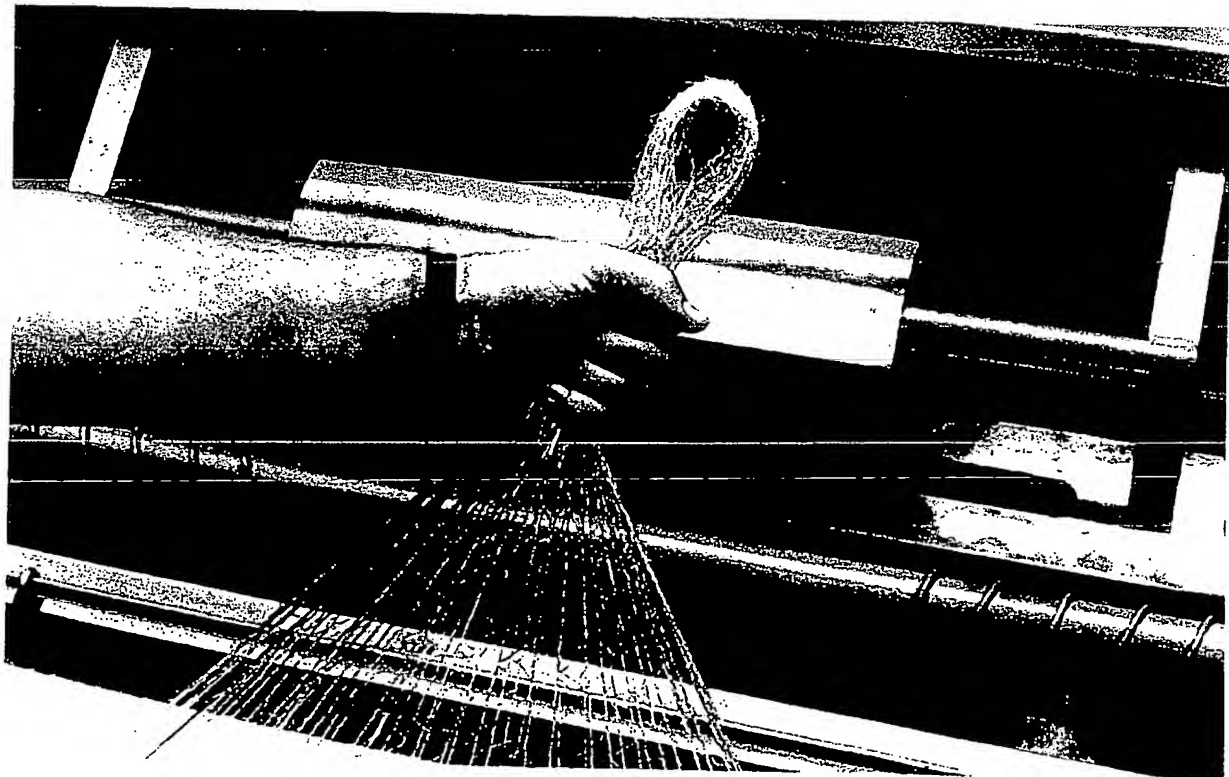


Figure F



## OPERATING INSTRUCTIONS (CONT.)

### LOADING THE NET WRAP (CONT.)

4. Feed the leading edge of the net wrap under the net wrap dispersal roller and into the two rubber feed rollers as shown in Figure D and Figure G. If you cannot turn the feed rollers by hand, use a wrench to turn the bolt head on the right end of a feed roller until the net wrap is caught between the two rollers.

**IMPORTANT:** Do not feed the net wrap too far through the rollers; you just have to get the net wrap held in well enough so that it cannot fall back out. If fed in too far, the net wrap will wrap around a rubber feed roller.

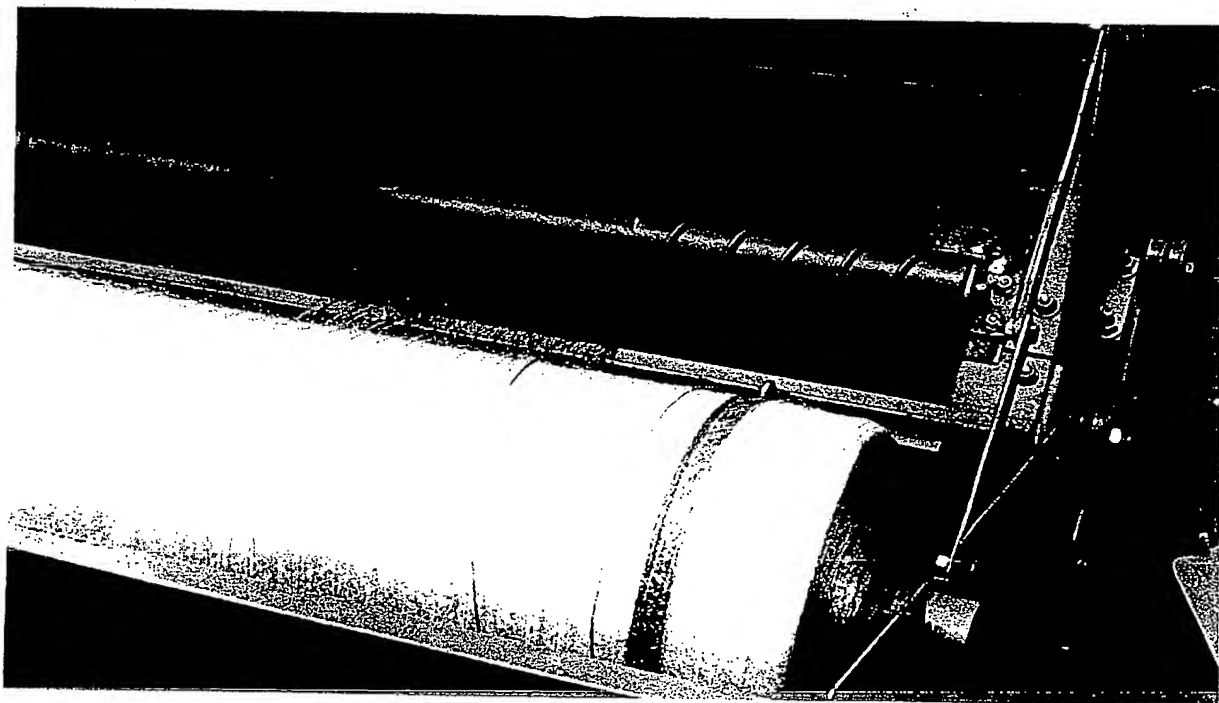


Figure G

5. Close the rear shield.

### WRAPPING AND EJECTING THE BALE

Wrapping the bale with net wrap is much like using the twine wrap, except it is much faster.

After the bale has reached desired or full size, stop the forward motion of the tractor and baler. Back up the baler so that more crop will not be fed into the baler.

Operation of the net wrap depends on whether the net wrap is in automatic or manual mode.

**Automatic:** Two seconds after the full bale indicator light glows and the audible alarm sounds, the net wrap mechanism will automatically wrap the bale and cut the wrap when it is finished.

**NOTE:** The automatic net wrap can be activated at any time by pressing the net wrap start button.

## OPERATING INSTRUCTIONS (CONT.)

### WRAPPING AND EJECTING THE BALE (CONT.)

**Manual:** Use the net wrap start button to start the net wrap system.


While the bale is being wrapped, the wrapping indicator light will glow continuously. Keep the baler stationary while the bale is being wrapped, but leave the PTO engaged and running at a consistent rpm for all bales. Varying tractor engine rpm during the wrapping procedure will change the number of wraps placed on the bale.

Shut off the PTO as soon as the net wrap is finished so that the edges of the bale do not become frayed.

Two adjustments are provided on the VCS control box:

- A. The net wrap feed control knob controls the amount of time the net wrap feed rollers drive the net wrap onto the feed belts. This is the most critical adjustment of the net wrap system. The net wrap must be driven long enough so that the bale grabs the wrap. The net wrap drive must disengage when the bale grabs the net wrap because the bale pulls the net wrap faster than the net wrap drive.

Place the knob in the center (white line at 12 o'clock). If the bale does not grab the net wrap, turn the knob counter-clockwise. If the net wrap is being pulled apart, turn the knob clockwise.

 **WARNING:** If the net wrap does not feed into the baler to wrap the bale, follow the normal shutdown procedure and determine the cause. Under no circumstances must the net wrap be fed or inserted into the baler by hand or through the feed rollers when the bale is turning. The net wrap feed rollers can pull in net wrap faster than you can let go. Stay clear of the net wrap knife blades. The upper knife can move suddenly.

If the net wrap does not feed into the bale chamber properly, follow the normal shutdown procedure. Check the net wrap system for:

- Net wrap properly inserted in feed rollers.
- Misfed net wrap. If the net wrap has wrapped around the feed rollers or feed belts, follow the instructions in the "Removing Misfed Net Wrap" on page 14.
- Loose net wrap drive belts. The hydraulic control lever on the tractor which is used to close the baler's tailgate must be held for three seconds after the tailgate is closed in order to reset the toggle roller and tighten the net wrap drive belts. If the net wrap drive belts are loose, move the tailgate control lever in the direction that closes the tailgate for three seconds to reset the toggle roller. If the tailgate control lever is moved in the wrong direction and the tailgate starts to open, the bale must be ejected.

When the problem has been corrected, depress the net wrap start button to restart the net wrap.

- B. The net wrap density control knob controls the length of time the bale gets wrapped. The longer the time, the more layers of wrap will be placed on the bale. Normal bales should have 2 1/2 to 3 layers of wrap.

## OPERATING INSTRUCTIONS (CONT.)

### WRAPPING AND EJECTING THE BALE (CONT.)

The number of wraps on a bale will be affected by bale size and PTO speed. Be sure to use a consistent PTO speed when wrapping the bale.

Start with the knob rotated fully counter-clockwise for approximately 2 1/2 to 3 layers of wrap on a full size bale at standard PTO rpm.

The bale is now ready to be ejected. The bale may be transported a short distance inside the baler. Do not leave the bale inside the baler for extended periods of time because the bale can become distorted and difficult to eject.

Back up the baler and tractor at least 12 feet (3.5 meters) from the windrow. This will allow room to close the tailgate after the bale is ejected. Shut off the PTO. Open the tailgate. This will cause the bale to leave the baler, dropping to the ground. Drive the baler forward so that the tailgate will not hit the bale as it closes. Again using the tractor's auxiliary hydraulic control lever, close the tailgate. Engage the PTO while closing the tailgate to help realign the belts. Hold the lever for 3 seconds after the tailgate is closed to make sure that the tailgate is locked.



**WARNING:** Never eject a bale where it can roll. A rolling bale can cause property damage or personal injury. Be sure the area behind the baler is clear.

Close the tailgate. Hold the lever used to close the tailgate an additional three seconds after the tailgate is closed and locked.

**IMPORTANT:** If the tailgate is unlocked or opened accidentally before a full bale is ready to be ejected, the tailgate cannot be relocked. The partially completed bale must be ejected.

If you need to enter the bale chamber or work near the rear of the baler, lock the tailgate in position as described in your baler operator's manual.

### REMOVING MISFED NET WRAP

Net wrap which misfeeds into the baler will usually wrap around one of the two rubber feed rollers. The most common causes of misfed net wrap are:

- dull knives. If the net wrap is not cut cleanly, the frayed ends can get pulled around the rollers.
- feeding the net wrap too far through the rubber rollers when initially loading the net wrap. The rubber feed rollers just need to prevent the net wrap from falling back out. Do not have net wrap extending past the rollers toward the bale chamber.

**NOTE:** If you attempt to check the net wrap system for proper function with an empty baler, you will have net wrap tangled in the baler which will be difficult to remove. It will most likely end up around the pickup and have to be cut out in little pieces.

## OPERATING INSTRUCTIONS (CONT.)

### REMOVING MISFED NET WRAP (CONT.)

To remove net wrap when it wraps around one of the two feed rollers:

1. Follow the normal shutdown procedure.
2. Open the rear shield to expose the roll of net wrap. Open the right side shield to expose the feed roller drive belt.
3. Check the brake #1, Figure H. If it is tight against the pulley, turn on the power to the VCS control box. Push the manual net wrap control switch up and hold for 1 to 3 seconds until the brake is released. Turn off the power to the VCS control box.
4. Pull the net wrap out of the feed rollers.

**IMPORTANT:** Do not attempt to cut the net wrap off the rubber feed rollers. It will be more difficult to remove and you can easily damage the rubber rollers.

5. Load the net wrap using the "Loading the Net Wrap" instructions on page 10.
6. Close the shields.
7. Reset the net wrap system at the VCS control box using the manual override control switch by pushing the manual net wrap control switch down and holding for four seconds.

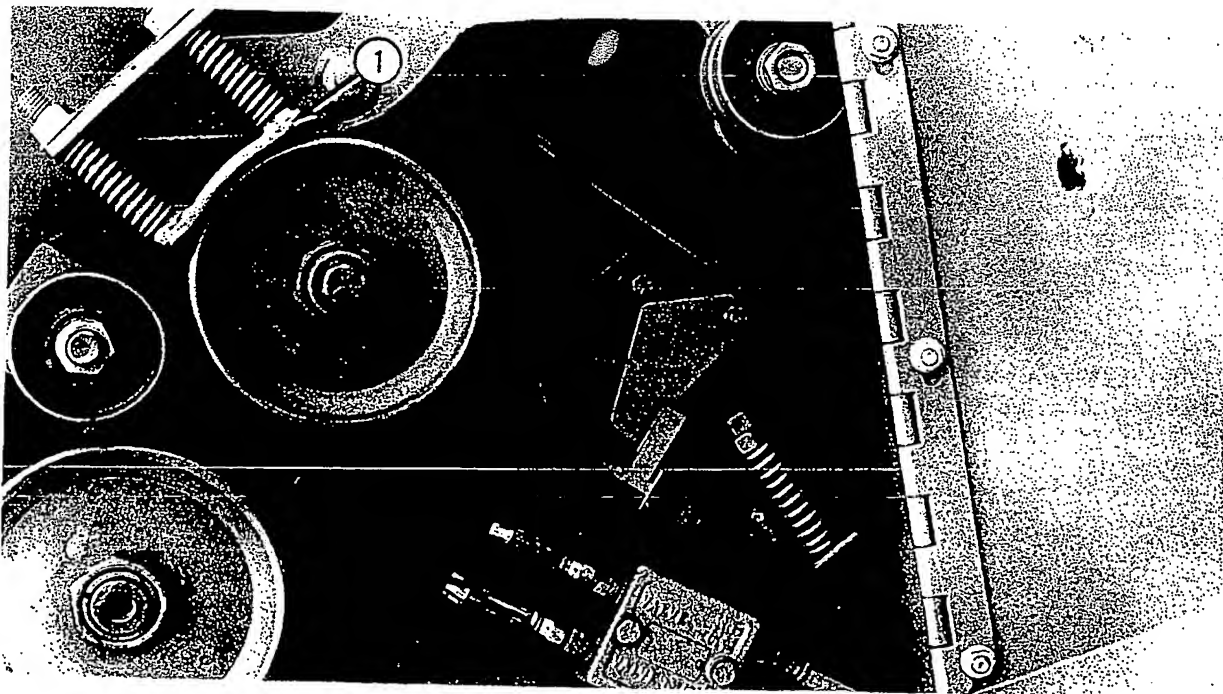


Figure H

### OPERATING INSTRUCTIONS (CONT.)

To remove net wrap when it wraps around the net wrap feed belts roller:

1. Follow the normal shutdown procedure.
2. Open the rear shield to expose the roll of net wrap and cut off the net wrap near the two rubber feed rollers. Cut the net wrap off as close to the roller for the feed belts as possible. Remove the excess net wrap.

**NOTE:** You can leave the net wrap on the roller until the bale is properly wrapped and ejected. Removing the net wrap from the roller is much easier when the tailgate is opened.

3. Reload the net wrap using the "Loading the Net Wrap" instructions on page 10.
4. Finish wrapping and ejecting the bale. Do not close the tailgate completely after the bale is ejected. This will leave the net wrap feed belts disengaged.
5. Lock the tailgate in position with the tailgate lock valve or cylinder stops.
6. Open the shields. Cut away all of the net wrap from around the feed belt roller.

7. Close the shields.

### CONVERTING BETWEEN TWINE WRAP AND NET WRAP

Both the net wrap and twine wrap systems can be left in place on the baler. Only one system can function at a time; you cannot use both twine and net wrap on one bale at the same time. Converting between the two wrap systems requires reattaching four electrical plugs, both located in the tongue area of the baler:

To switch to twine wrap when the net wrap system is operational:

1. Detach the two prong plug with the red and yellow wires from the wires leading to the net wrap actuator at the rear of the baler. Connect the plug to the wires from the twine wrap actuator.
2. Detach the black and white wires from the wires leading to the magnetic reed switch near the net wrap actuator at the rear of the baler. Connect the plug to the wires from the magnetic reed switch near the twine wrap actuator.
3. Detach the pink wires from the net wrap magnetic switches.

To switch to net wrap when the twine wrap system is operational:

1. Detach the two prong plug with the red and yellow wires from the wires leading to the twine wrap actuator. Connect the plug to the wires from the net wrap actuator.
2. Detach the black and white wires from the wires leading to the magnetic reed switch near the twine wrap actuator. Connect the plug to the wires from the magnetic reed switch near the net wrap actuator.
3. Connect the pink wires to the net wrap magnetic switches.

### STORAGE INSTRUCTIONS

The most common cause of dull knives is rust. Protect the knife blades from moisture. Coat the knives with oil. Use a brush to avoid contact with sharp edges.

Remove the net wrap from between the feed rollers. If the net wrap is left between the feed rollers, it may leave indentations in the rollers which will damage the rollers.

### LUBRICATION INSTRUCTIONS

**WARNING:** Use the normal shutdown procedure (page 9) before lubricating the machine.

Use only a high quality, multi-purpose grease when lubricating the unit. Make sure all fittings and the nozzle of the grease applicator are clean before applying the grease. If any grease fittings are missing, replace them immediately.

As a general rule, grease the machine after it is shut down for the day. This protects the metal from corrosion caused by condensation as the temperature drops.

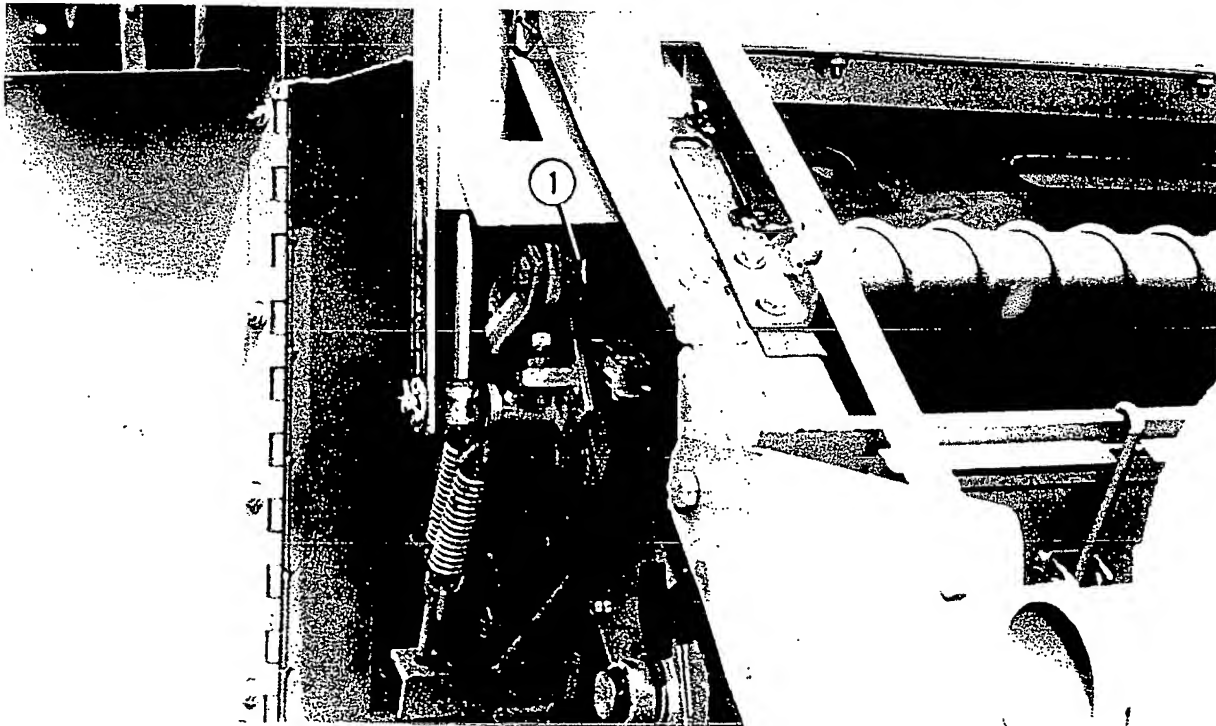


Figure 1 - Pivot

1. Grease daily.

## SERVICE & MAINTENANCE INSTRUCTIONS

### KNIVES

The knives must be kept sharp enough to cut paper. Use a sharpening stone, emery cloth, or hand file to sharpen the knives. Do not use a grinder; you can easily remove the temper from the spring steel. The knives must be removed from the baler in order to sharpen them.

To replace or sharpen the knives:

1. Connect the baler to a tractor.
2. Open the rear shield to expose the roll of net wrap. Remove the knife safety shield #1 and dispersal roller #2, Figure J.

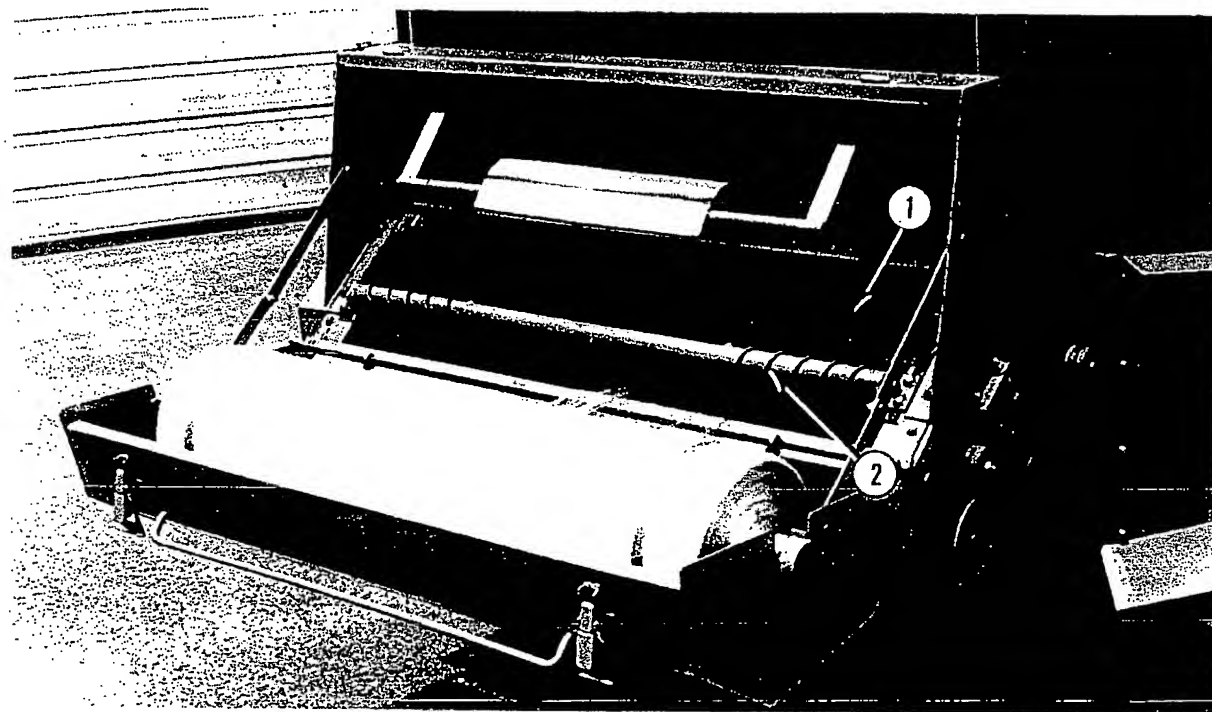


Figure J

3. Raise the tailgate approximately halfway. Follow the normal shutdown procedure.
4. Lock the tailgate in position with the lock valve or cylinder stops.
5. Hold the manual override control switch up until you hear a thump from the knife assembly or the indicator lights on the control box dim. Shut off the VCS control box.
6. Detach the lower shield.
7. Remove the knives.
8. Install new or sharpened knives so that the bevels face each other as shown in Figure K.

## SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)

### KNIVES (CONT.)

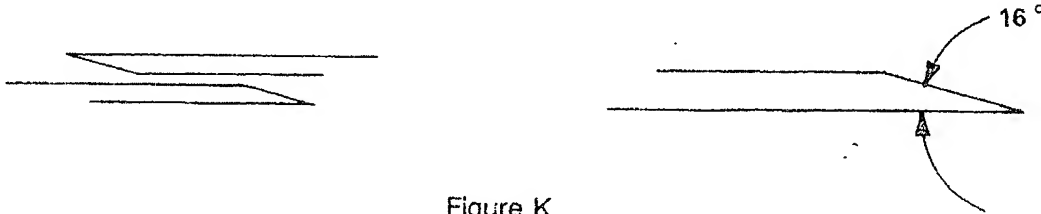


Figure K

9. Attach the lower shield.
10. Unlock and lower the tailgate.
11. Install the knife safety shield and dispersal roller.
12. Reset the net wrap system at the VCS control box by using the manual override control switch.

### LINKAGE ADJUSTMENTS

#### Net Wrap Roll Tension

A pressure plate #1, Figure L, keeps the net wrap roll from unwinding after the net wrap is cut. The tension of this plate is properly adjusted when it keeps the roll from unwinding as the roll gets smaller, but also allows the net wrap to droop slightly after the net wrap is cut. A slight amount of droop helps the net wrap feed better the next time the net wrap cycle starts. Check the amount of droop by opening the lower shield and observing the net wrap between the net wrap roll and the feed rollers. To decrease the tension on the pressure plate, loosen the nuts #2. To increase the tension, tighten the nuts #2.

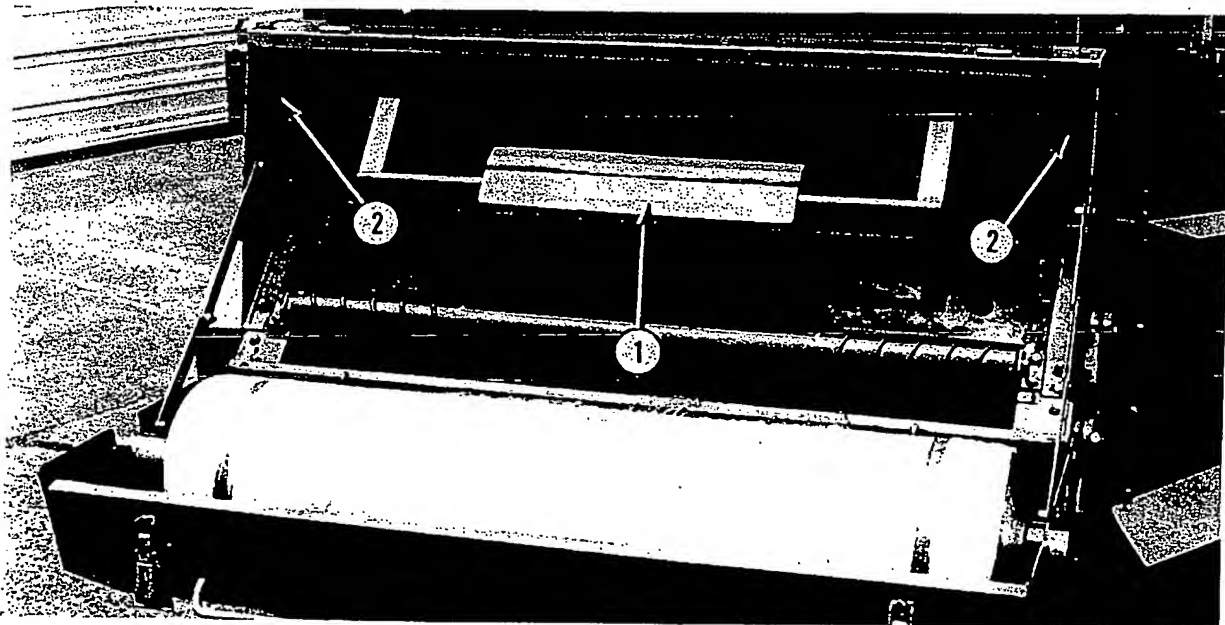


Figure L



## SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)

### LINKAGE ADJUSTMENTS (CONT.)

#### Feed Roller V-Belt Drive Tension

Two belt idler pulleys are needed because of the short belt span. One belt idler pulley #1, Figure M, is fixed and the other idler pulley #2 is on an arm which moves. Feed roller v-belt tension is changed whenever the tension of the net wrap feed belts is changed as described in the "Net Wrap Feed Belt Tension" section on page 22.

To adjust the feed roller V-belt drive tension:

1. If necessary, adjust the tension of the net wrap feed belts as described in the "Net Wrap Feed Belts - Tension" section below. Tightening the net wrap feed belts tightens the feed roller V-belt drive; loosening the net wrap feed belts loosens the feed roller V-belt drive.
- Open the right side shield. Adjust the fixed idler pulley #1 so that the belt can be deflected 7/8" (22 mm) in the center of the span opposite the fixed idler pulley when the belt tightener is disengaged.
- Push the manual net wrap control switch up and hold for about 5 seconds. Release the switch when you hear a thump from the net wrap system or the lights on the control box dim. Shut off the VCS control box.
- Check that the movable idler pulley #2 is engaged. If not, repeat step 2 until it is.
- Check that the V-belt is tight. If the movable belt tightener idler pulley contacts either of the other pulleys, the fixed belt tightener idler pulley is not tight enough or the V-belt is too long.
- Reset the net wrap system of the control box by pushing the manual override switch down until you hear a thump.

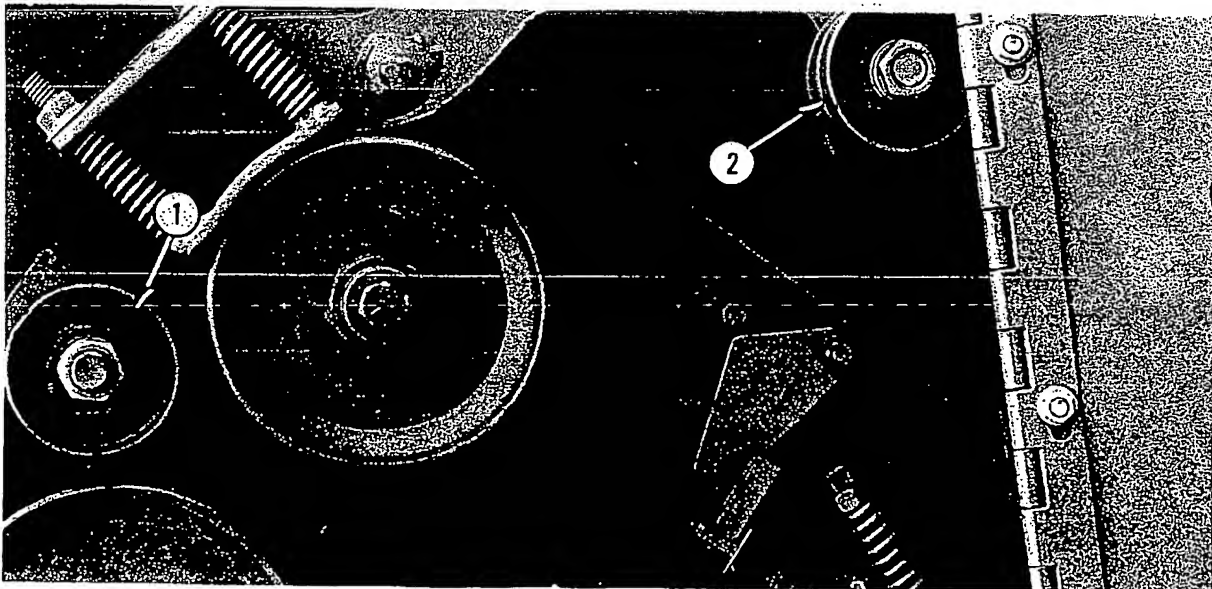


Figure M

## SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)

### LINKAGE ADJUSTMENTS (CONT.)

#### Drive Belt Brake Tension

When the brake #1, Figure N, is engaged as shown, there should be a 1/8" (3 mm) gap under the nuts #2.

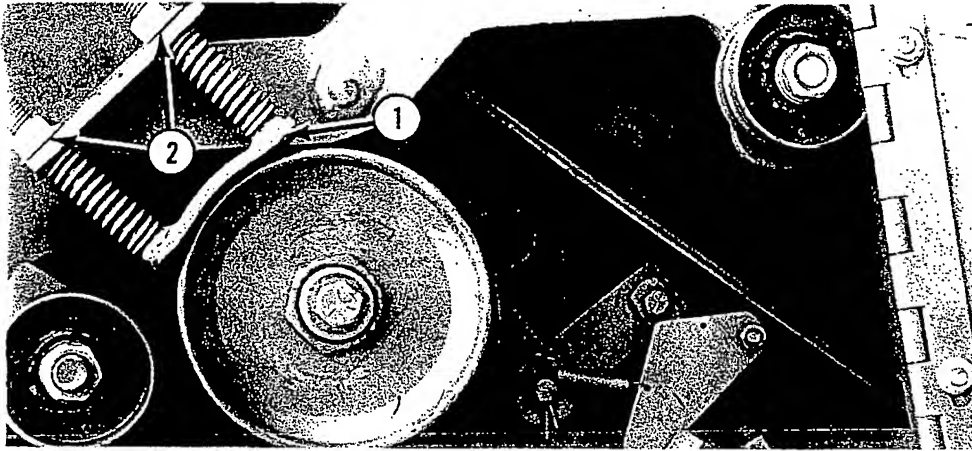


Figure N

#### Knife Tension

Two knife tension springs #1, Figure O, determine the force of the knife as it cuts the net wrap. The spring coils should just be starting to separate when the knife is in its home position (belt tightener disengaged, drive belt brake on). Adjust nuts #2 as necessary to obtain the proper spring tension.

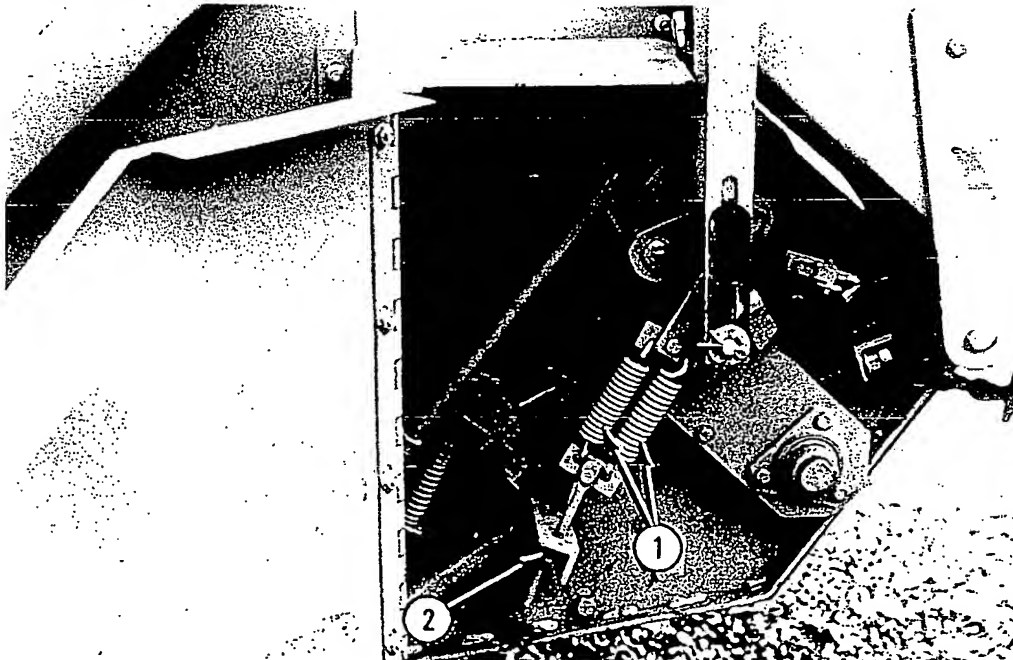


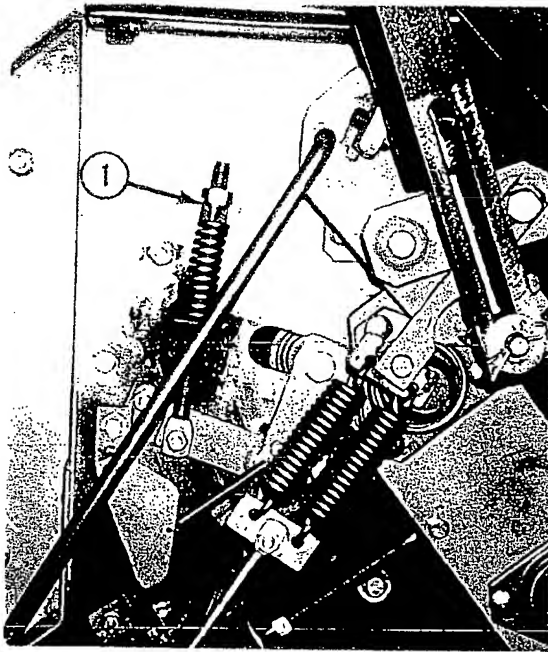
Figure O

## SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)

### LINKAGE ADJUSTMENTS (CONT.)

#### Net Wrap Drive Roller Tension

The net wrap drive rollers are held together by spring tension. There are two springs, one on each side of the baler. These springs should be compressed  $1/8"$  (3 mm) when there is nothing between the feed rollers. A new spring measures  $2\ 3/4"$  (6.9 cm). Adjust the nuts #1, Figure P, so that the spring measures  $2\ 5/8"$  (6.7 cm).



I-Baler



J-Baler

Figure P

#### Net Wrap Feed Belt Tension

The net wrap feed belts #1, Figure Q, should be adjusted so that they are snug. Overtightening the belts can cause the belt lacings to fail. To increase the tension of the belts, tighten the nuts #2, Figure R. To loosen the tension of the belts, loosen the nuts #2. Be sure to adjust both sides evenly or the belts will not track properly.

**NOTE:** Changing the tension of net wrap feed belts changes the tension of the feed roller V-belt drive also. Refer to the preceding "Feed Roller V-Belt Drive Tension" section.

SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)

LINKAGE ADJUSTMENTS (CONT.)

Net Wrap Feed Belt Tension (Cont.)

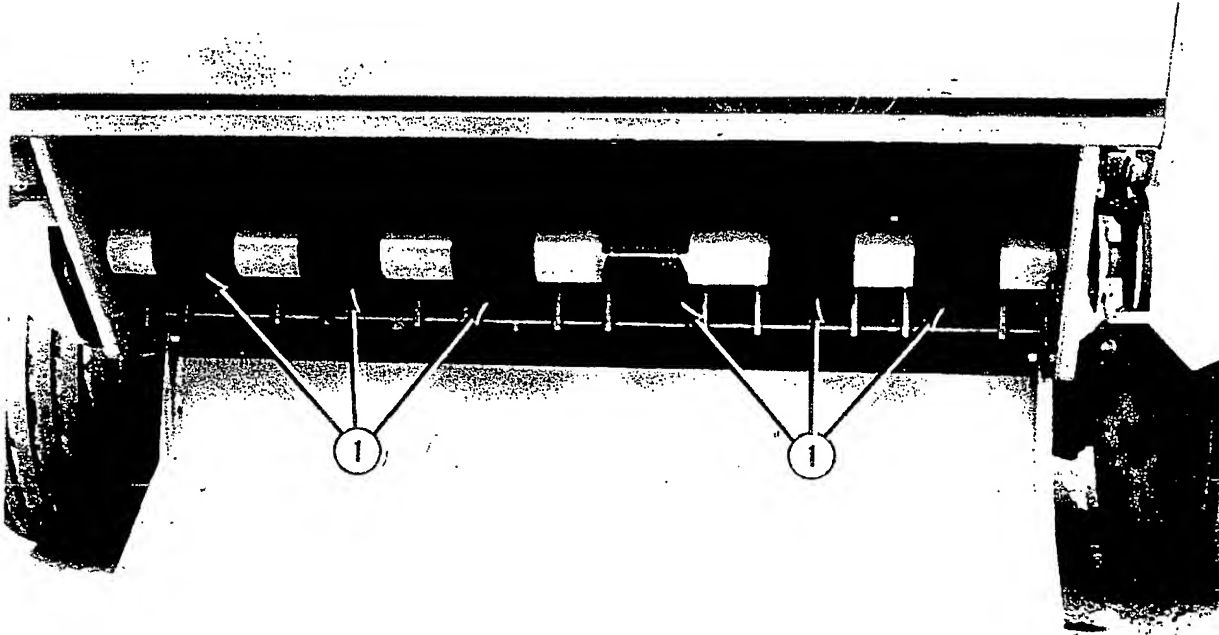


Figure Q

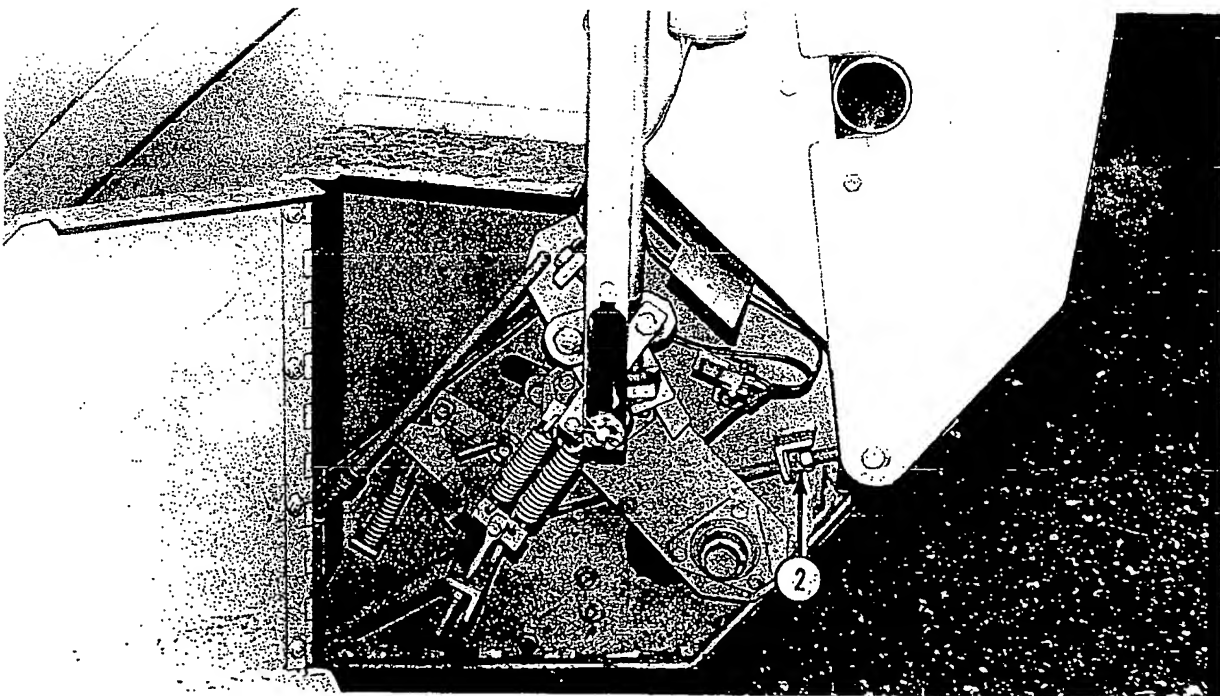


Figure R

## SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)

### LINKAGE ADJUSTMENTS (CONT.)

#### Belt Guide Linkage

The belt guide in the tailgate for the bale forming belts is lowered as the net wrap is fed into the bale chamber. The belt guides are raised back into position after the bale is ejected as the tailgate is lowered. The belt guide is lowered through linkage connected to the electric actuator and raised with the hydraulic cylinder.

A spring cylinder #1, Figure S, is used to hold the belt guide linkage in both the raised and lowered positions. If the belt guide will not stay in position, tighten the nut #2.

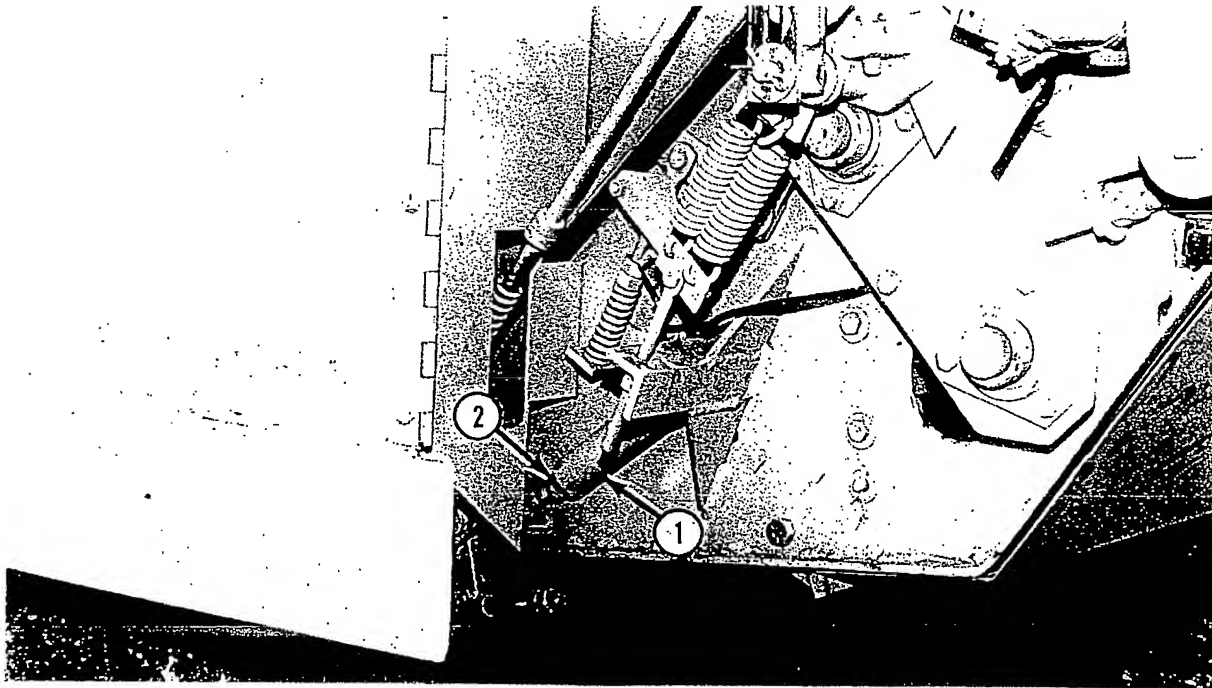


Figure S

#### Knife Linkage Freeplay

The knife linkage has freeplay so that the knife can swing freely and quickly to cut the net wrap. If the knife contacts the set screw #1, Figure T, before cutting the net wrap, back off the set screw. This set screw contacts the actuator linkage as the actuator retracts, opening the path for the net wrap. Set screw #2 contacts the actuator linkage as the actuator extends. When the knife linkage reaches a certain point, the springs #3 pull the knife into the net wrap, cutting it off.

**SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)**

**LINKAGE ADJUSTMENTS (CONT.)**

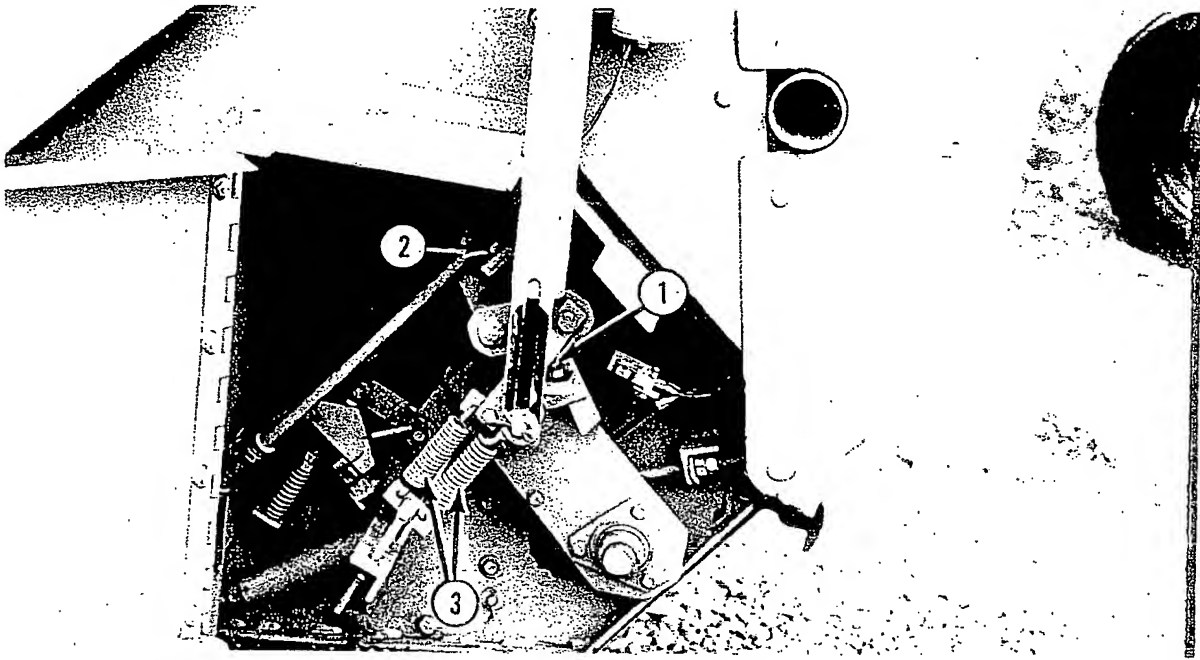


Figure T

**Toggle Roller Hydraulic Cylinder Linkage**

The toggle roller linkage pulls the bell crank overcenter, raising the toggle roller which releases tension on the net wrap feed belts. If the bell crank is not being pulled overcenter, tighten the nut #1, Figure U.

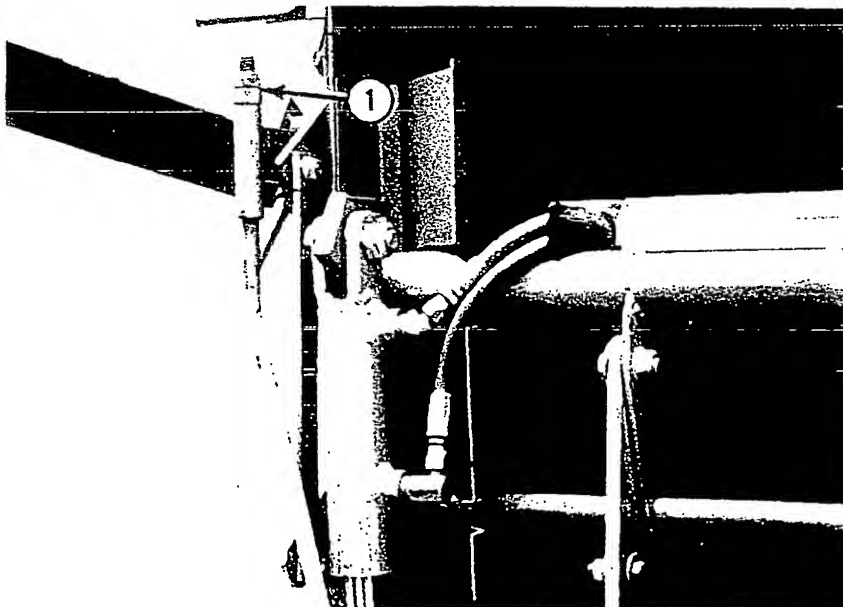


Figure U

## SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)

### ELECTRICAL ADJUSTMENTS

The sensors of the net wrap system use the same magnetic reed switches as the rest of the baler's VCS system. When a steel trigger passes through the switch, the switch is activated. If the steel trigger does not pass through enough of the gap between the switch arms, the switch may not be activated; the steel trigger must come within 1/8" to 3/16" (3 - 5 mm) of the base of the switch.

There are two sensors for the net wrap feed. These sensors verify the presence of the net wrap when the bale is being wrapped. If either switch is misadjusted, the wrapping indicator light will flash continuously through the wrapping cycle.

To adjust the sensors:

1. Open the side shields.
2. Check that the steel trigger is just clear of each magnetic reed switch. Adjust the magnetic reed switch as necessary. If you do not need to adjust either switch at this point, skip to step 4.
3. Close the side shields. Recheck the switch setting by running the net wrap through its cycle with a bale in the baler. If the wrapping indicator light still flashes continuously, push the manual net wrap control switch up and hold for 3 seconds. Shut off the tractor.

**NOTE:** If you attempt to check the net wrap system for proper function with an empty baler, you will have net wrapped tangled in the baler which will be difficult to remove. It will most likely end up around the pickup and have to be cut out in little pieces.

4. Open the side shields.
5. Check that the steel trigger is between the arms of each magnetic reed switch. If it isn't, and the net wrap is pulled tight into the baler chamber, the sensor arm in the bale chamber above the net wrap is not properly aligned with the switch trigger. Loosen the nut #1, Figure V, and adjust the switch trigger so that it is between the magnetic reed switch arms. Make sure that the sensor arm is resting on the net wrap. Reset the net wrap system.
6. Close the side shields. Recheck the switch setting by running the net wrap through its cycle with a bale in the baler. If the wrapping indicator light still flashes continuously, one of the switches or the wiring harness is defective.

**NOTE:** Removing a wire from a magnetic reed switch is equivalent to placing a steel trigger between the switch arms. You can determine whether the switch or wiring is at fault by removing the two wires from each magnetic reed switch, one switch at a time, and turning on the VCS control box. If the switch is defective, the wrapping indicator light will flash continuously when the wires are not connected, but stop flashing when the wires are held together. If the light flashes continuously either way, one of the wires is broken. If the light does not flash at all, one wire is shorted to the baler. Look for a spot on the wires where the insulation has worn through.



## SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)

### ELECTRICAL ADJUSTMENTS (CONT.)

There is one sensor for the belt and brake disengaged position. As long as the sensor is functioning and the belt and brake are disengaged when the steel trigger stops at the magnetic reed switch, no adjustment is required. The brake and belt are disengaged for much of the travel of the electric actuator, so the actual location of the sensor could vary significantly and still function properly. The sensor is set by the factory to stop the electric actuator just before the knife cuts off the net wrap. If your knife cuts off the net wrap just after the net wrap is first fed into the bale chamber, raise the magnetic reed switch as necessary.

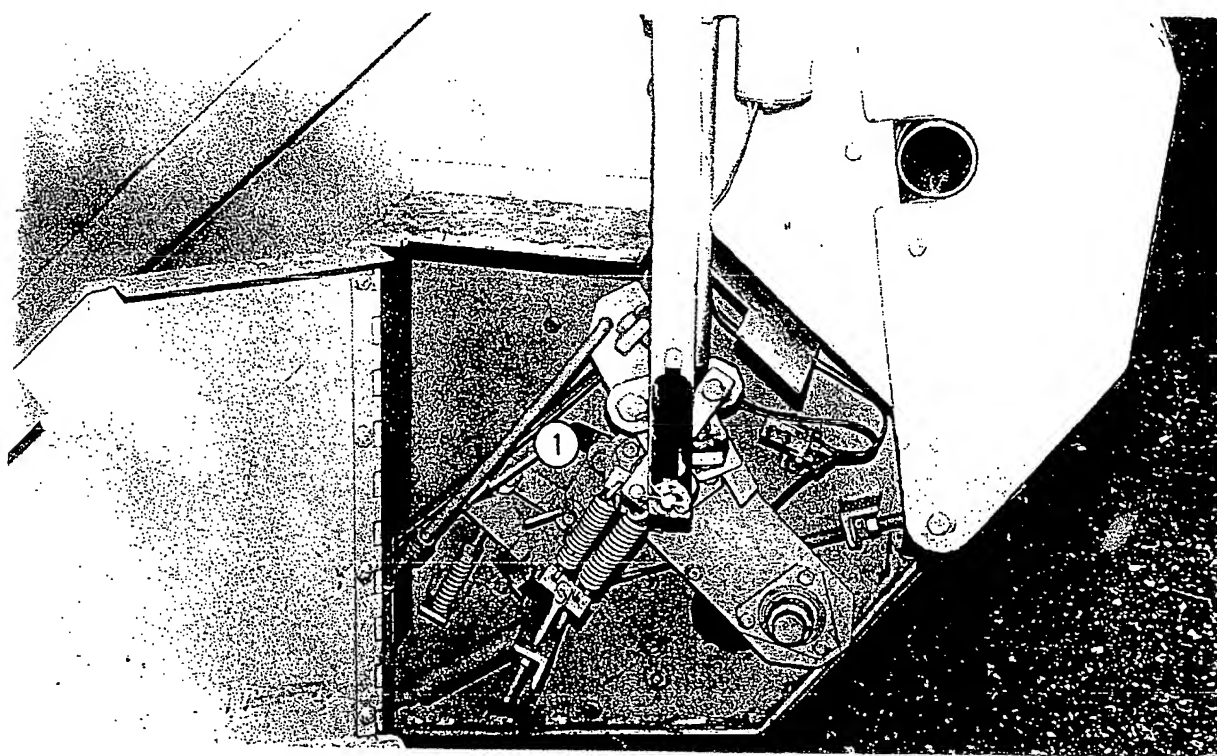


Figure V



SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)

ELECTRICAL SYSTEM

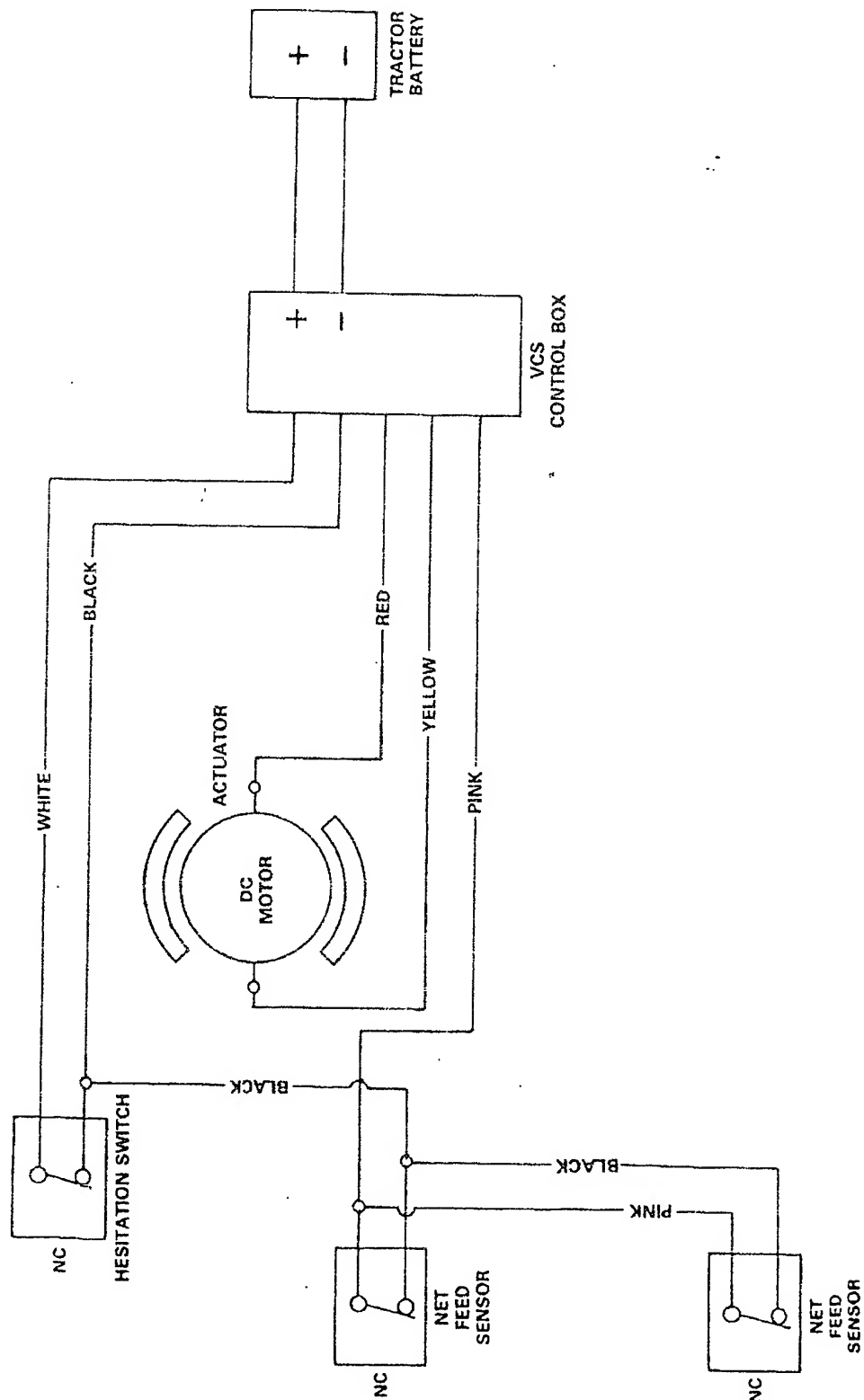


Figure W - Net Wrap Schematic - I & J Baler

## SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)

### HYDRAULIC SYSTEM

#### Cylinders

The cylinders are standard hydraulic cylinders. Refer to your baler operator's manual for the repair procedure.

#### Lock Valves

**WARNING:** Relieve all pressure in the hydraulic system before disconnecting the lines or performing other work on the system. Some residual pressure will probably remain in the toggle roller hydraulic circuit due to the lock valve. When loosening fittings in lines where residual pressure may exist, slowly loosen fitting until oil begins to leak. Wait for leaking to stop before disconnecting fittings. Make sure all connections are tight and lines are in good condition before applying pressure to the system.

A double lock valve #1, Figure X, is installed to keep the toggle roller in position while baling. If the toggle roller comes up while baling, the lock valve may be defective.

To check the function of the lock valve:

1. Reverse the two hoses #2 running to the lock valve.
2. Reverse the two hoses #3 running from the lock valve to the toggle roller cylinders.
3. Make some bales to test the lock valve.

If the toggle roller still comes up, both cylinders are leaking internally. If reversing the hoses corrects the problem, you do not need to replace the lock valve. The lock valve has two cartridges; you are now using the second cartridge. If the problem reoccurs, you will need a new lock valve and the hydraulic system should be checked for contaminants.

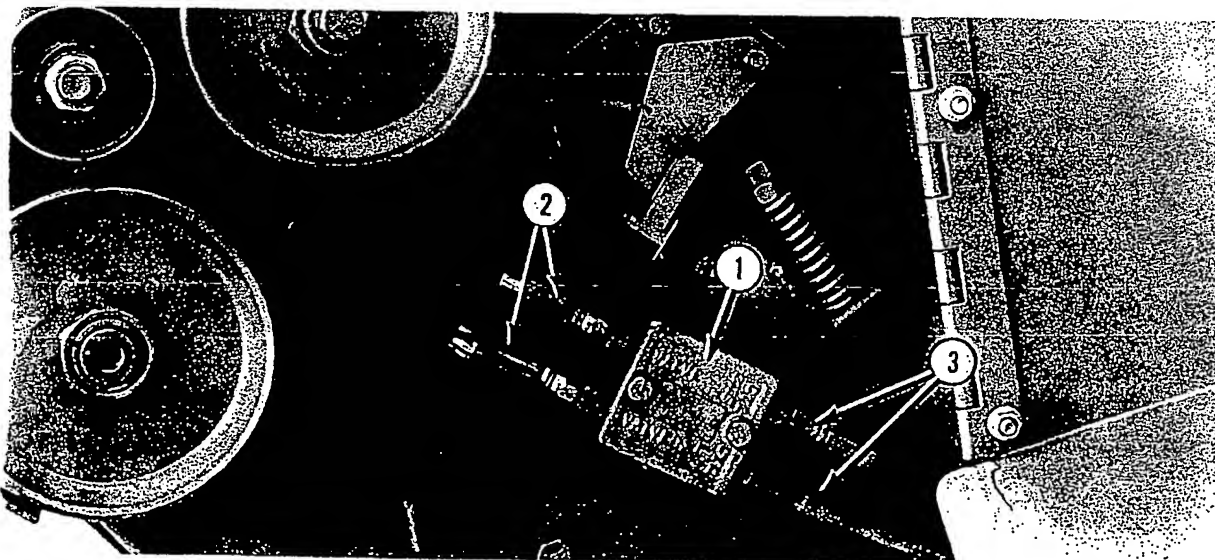


Figure X - Lock Valve

SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)

Hydraulic Schematic - J Baler

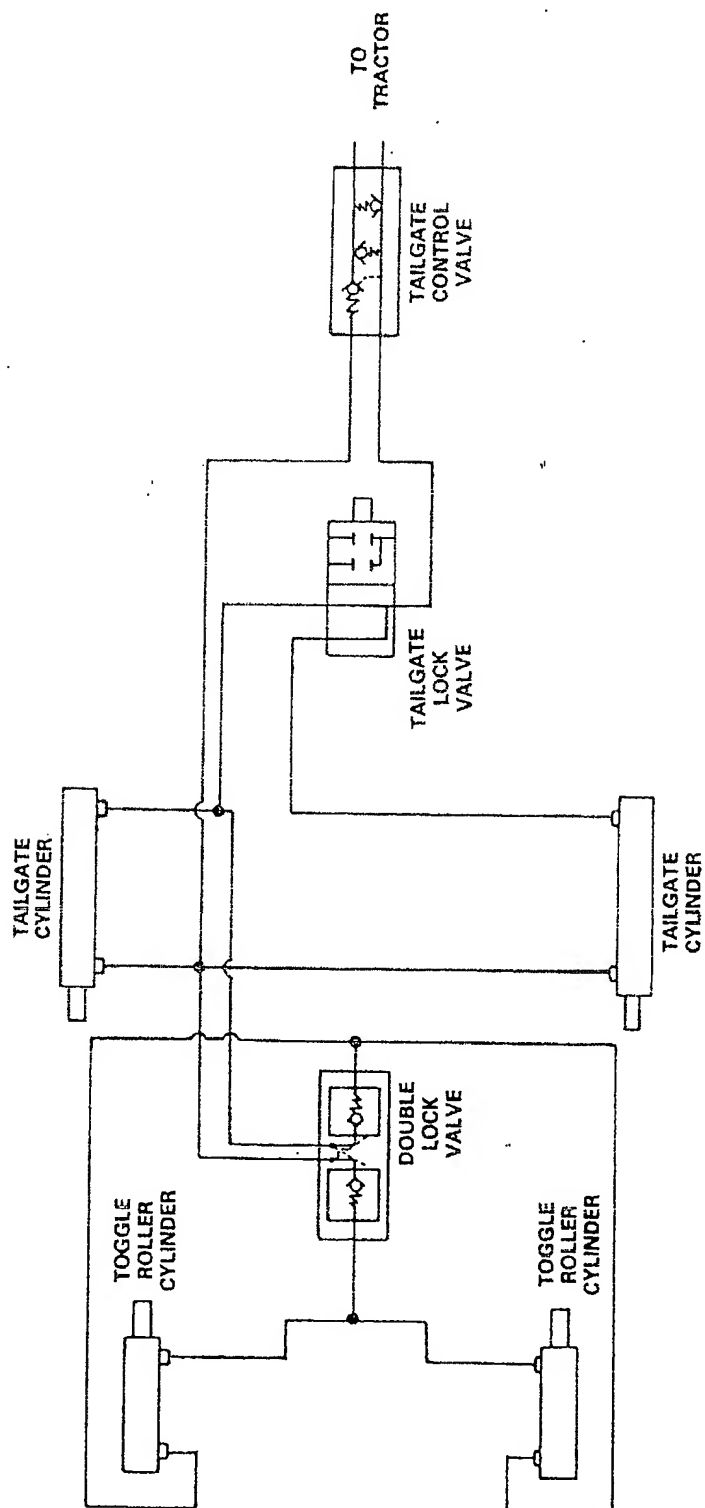


Figure V

SERVICE & MAINTENANCE INSTRUCTIONS (CONT.)

Hydraulic Schematic - I Baler

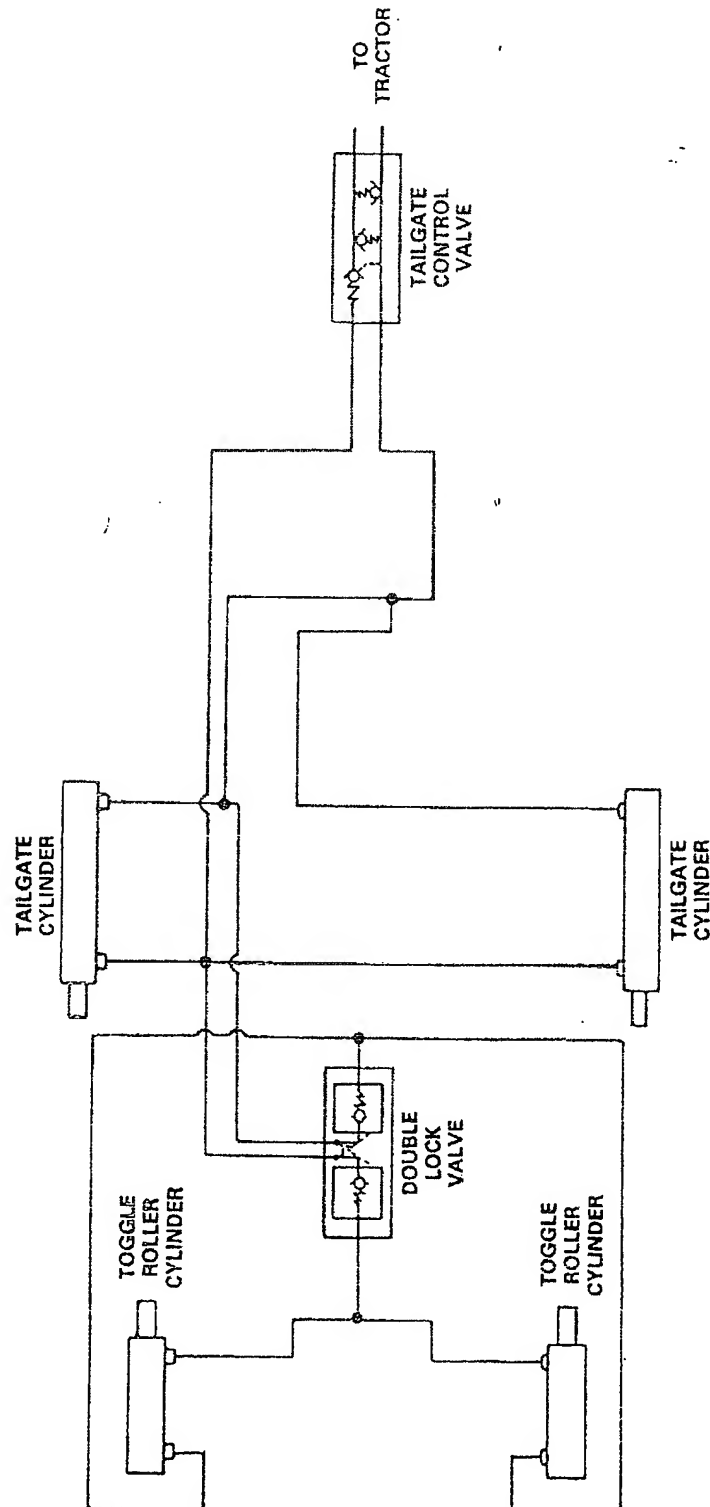


Figure Z

## TROUBLESHOOTING

### Net Wrap does not feed into baler.

- Toggle roller hasn't reset. Hold the lever used to close the tailgate an additional three seconds after the tailgate is closed and locked.
- Net wrap roll pressure plate too tight. The net wrap between the net wrap roll and the rubber feed rollers must droop slightly. Refer to "Net Wrap Roll Tension" on page 19.
- Net wrap feed control knob (*labelled end wraps*) does not allow enough time for net wrap to be fed into baler. Rotate the knob counter-clockwise.
- No power to electric actuator.
- Net wrap caught in net wrap rubber feed rollers causing too much tearing on rubber feed rollers.

### Net Wrap snags or wraps around rollers or belts.

- Too much net wrap sticking through rubber net wrap drive rollers. Refer to "Loading the Net Wrap" on page 10.
- Net wrap not being cut cleanly. Sharpen or replace knives. Refer to "Knives" on page 18.
- Too much tension on rubber net wrap drive rollers. Refer to "Net Wrap Drive Roller Tension" on page 22.
- Net wrap roll pressure plate too loose. The net wrap between the net wrap roll and the rubber feed rollers must not droop too much. Refer to "Net Wrap Roll Tension" on page 19.

### Net Wrap being pulled apart.

- Net wrap feed control knob (*labelled end wraps*) feeds net wrap into the baler for too long. Rotate the knob clockwise.

### Net wrap fed into entire bale.

- Feed roller drive belt does not disengage. Loosen the fixed idler and check brake contact. Refer to "Feed Roller V-Belt Drive Tension" on page 20 and "Drive Belt Brake Tension" on page 21.
- Net wrap feed system not in home position when starting to bale. Hold the manual override switch down until the control box indicator lights dim.




### Number of wraps on bales is Inconsistent.

- Maintain constant PTO speed when wrapping all bales.
- Maintain constant bale size or adjust the net wrap density control knob for smaller bales.

## Vermeer Recommended Torque Values

For SAE Grade 2, Grade 5, and Grade 8 Cap Screws & Bolts

**NOTE:** Torque values specified in text take precedence over values shown below. These values do not apply when used with lock nuts.

BOLT SIZE		 GRADE - 2 TORQUE VALUE	 GRADE - 5 TORQUE VALUE	 GRADE - 8 TORQUE VALUE
I N. L B S.	1/4 - 20 NC	45	75	115
	1/4 - 28 NF	55	95	135
	5/16 - 18 NC	105	160	240
	5/16 - 24 NF	115	180	260
F T. L B S.	3/8 - 16 NC	16	25	35
	3/8 - 24 NF	18	30	40
	7/16 - 14 NC	25	40	55
	7/16 - 20 NF	30	45	65
	1/2 - 13 NC	40	60	90
	1/2 - 20 NF	45	70	95
	9/16 - 12 NC	55	90	120
	9/16 - 18 NF	60	95	135
	5/8 - 11 NC	75	120	180
	5/8 - 18 NF	80	145	195
	3/4 - 10 NC	130	210	300
	3/4 - 16 NF	145	240	340
	7/8 - 9 NC	150	320	500
	7/8 - 14 NF	170	350	560
	1 - 8 NC	180	480	800
	1 - 14 NF	200	560	920
	1 1/8 - 7 NC	240	700	1180
	1 1/8 - 12 NF	275	780	1340
	1 1/4 - 7 NC	340	1020	1720
	1 1/4 - 12 NF	370	1140	1900
	1 3/8 - 6 NC	460	1360	2280
	1 3/8 - 12 NF	540	1580	2620
	1 1/2 - 6 NC	640	1840	3060
	1 1/2 - 12 NF	740	2100	3460

N E W T O N  M E T E R S	1/4 - 20 NC	5	8 1/2	13
	1/4 - 28 NF	6	11	15
	5/16 - 18 NC	12	18	27
	5/16 - 24 NF	13	20 1/2	29 1/2
	3/8 - 16 NC	22	35	47
	3/8 - 24 NF	24	40	55
	7/16 - 14 NC	35	55	75
	7/16 - 20 NF	40	60	88
	1/2 - 13 NC	55	80	120
	1/2 - 20 NF	60	95	130
	9/16 - 12 NC	75	120	165
	9/16 - 18 NF	80	130	185
	5/8 - 11 NC	100	165	245
	5/8 - 18 NF	110	200	285
	3/4 - 10 NC	175	285	405
	3/4 - 16 NF	200	325	460
	7/8 - 9 NC	205	435	680
	7/8 - 14 NF	230	475	760
	1 - 8 NC	245	650	1085
	1 - 14 NF	270	760	1250
	1 1/8 - 7 NC	325	950	1600
	1 1/8 - 12 NF	375	1060	1815
	1 1/4 - 7 NC	460	1385	2330
	1 1/4 - 12 NF	500	1545	2575
	1 3/8 - 6 NC	625	1845	3090
	1 3/8 - 12 NF	730	2140	3550
	1 1/2 - 6 NC	870	2495	4150
	1 1/2 - 12 NF	1000	2850	4690

7-30-71

605 Net wrap  
NET WRAP SERIAL NUMBERS

Shasgow, Ky. 101 - 367084 ~~Field Installed~~ Field INSTALLED  
La. boot MO. 102 - 366648 mounted on baler  
Stuckton MO. 103 - 366995 Mounted on baler  
Calmar NE. 104 - 366728 mounted on baler

105 -

106 -

107 -

108 -

109 -

110 -

111 -

112 -

113 -

114 - Earl Hopkins Cosette

115 -

116 -

117 -

118 -

119 -

120 -

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604 Netwrap 95 - Holland

96 -

97 - 366453

PENGAD-Bayonne

EXHIBIT

C

1-21-92

604J

<u>Baler</u>	<u>Net Wrap</u>	<u>Owner</u>
<u>S/N</u>	<u>S/N</u>	
	095	Field installed Vermint
858	096	Bob Lempges
908	097	Triple H Equipment (Returned)
	098	Jesse Turner
	099	Engineering - Prototype
	100	Vermint - Scrapped
	101	Australia
	102	In Stock
	103	In Yard
	104	In Yard
	105	In Yard

504I

<u>Baler</u>	<u>Net Wrap</u>	<u>Owner</u>
<u>S/N</u>	<u>S/N</u>	
	096	Engineering Demo
	097	TC Vermeer
	098	TC Vermeer
	099	TC Vermeer
	100	Engineering Prototype
	101	In Yard
	102	In Yard
	103	In Yard
	104	In Yard
	105	In Yard

In England 4-20-91 as sent  
these units are to be destroyed  
5 and 6 units were removed on  
4-20-91 and given to Terry L.R. G.  
Hawell



1-20-92

605J

<u>Baler</u>	<u>Net Wrap</u>	<u>Owner</u>
<u>S/N</u>	<u>S/N</u>	
4255	094	Lyman Bottcher
4164	095	Larry Bottcher
3444	096	Sales Demo
4231	097	Billy Liebhart
4255	098	"
	099	scrapped
	100	scrapped
kit	101	J & J Sales
4724	102	Francis Tate
4771	103	Decker Implement
4690	104	Larry Bottcher
4387	105	Bernard Hammes
4919	106	"
4801	107	Lael Hoskins
3530	108	Glenn McClellan
4647	109	Arnold Dammann
4722	110	Robert Breeden
4829	111	Arnold Dammann
4960	112	Dale Ostermeyer
4821	113	Lael Hoskins
2463	114	"
4988	115	Billy Liebhart
4994	116	Bob Breeden
5002	117	Tom Minard (Returned)
4615	118	Farm Shop
5023	119	Alan Owens
5013	120	Glenn McClellan
5120	121	Glenn McClellan
5031	122	Lael Hoskins
5167	123	Scott Machinery
5193	124	Engineering
5234	125	Glenn McClellan

5-13-92

NET WRAP REBUILD

	<u>S/N</u>	<u>Dealer</u>	<u>Model</u>
1st	094	Lyman Bottcher	605
	095	Larry Bottcher	605
	104	Larry Bottcher	605
2nd	109	Arnold Dammann	605
	111	Arnold Dammann	605
3rd	112	Dale Ostermeyer	605
4th	113	Lael Hoskins	605
	114	Lael Hoskins	605
	107	Lael Hoskins	605
	122	Lael Hoskins	605
5th	116	Bob Breeden	605
	110	Bob Breeden	605
6th	105	Bernard Hammes	605
	106	Bernard Hammes	605
7th	102	Francis Tate	605
8th	103	Decker Implement	605
9th	108	Glenn McClellan	605
	120	Glenn McClellan	605
	121	Glenn McClellan	605
	125	Glenn McClellan	605
10th	123	Scott Machinery	605
11th	097	Billie Liebhart	605
	098	Billie Liebhart	605
	115	Billie Liebhart	605
12th	118	Farm Shop	605
13th	119	Alan Owens	605
14th	101	J & J Sales	605
	096	Bob Lempges	604
	098	Jesse Turner	604
15th	101	Australia	604
	095	Vermint	604
16th	097	T.C. Vermeer	504
	098	T.C. Vermeer	504
	099	T.C. Vermeer	504

TOTAL - 34

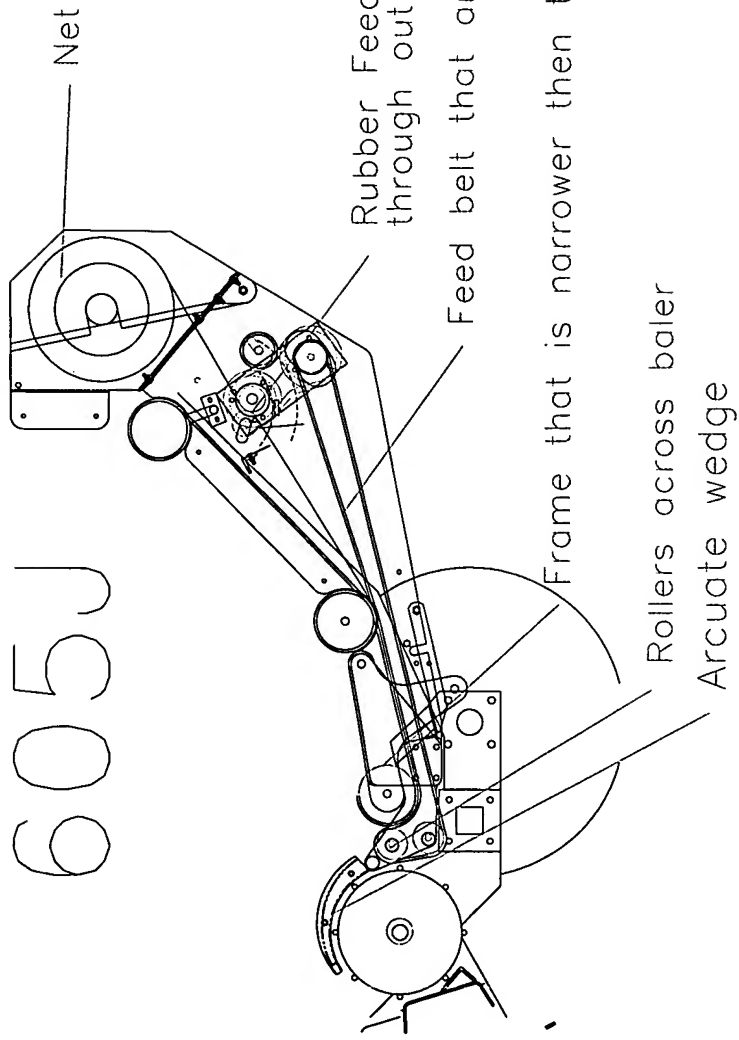
4-30-91

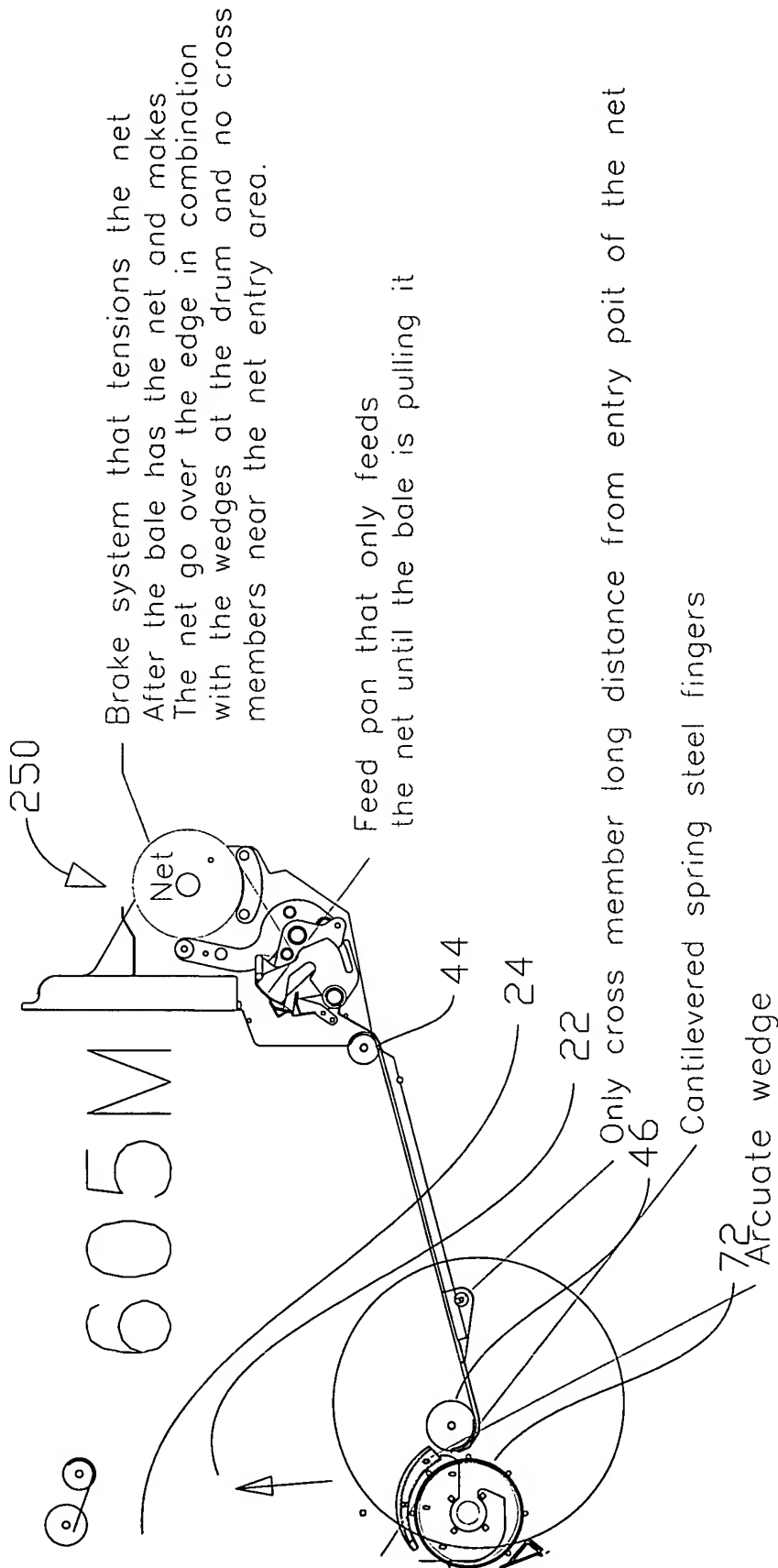
# PROTOTYPE NETWRAP STATUS

DATE INSTALLED	BALER SERIAL NO.	NETWRAP SERIAL NO.	INSTALLED BY	DATE INVOICED	LOCATION
1989?		605J 100	ENGINEERING	ENGINEERING PROTOTYPE	SCRAPED (FIRST PROTOTYPE)
1989		605J 099	ENGINEERING	ENGINEERING PROTOTYPE	SCRAPED 9-14-90
10-11-90	4255	605J 098	JOB SHOP	7-16-90	BILLY LEIBHART - MISSOURI
11-7-90	4231	605J 097	JOB SHOP	7-16-90	BILLY LEIBHART - MISSOURI
3-22-90	3444	605J 096	JOB SHOP	7-16-90	SALES DEMO
9-4-90	4164	605J 095	JOB SHOP	7-16-90	LARRY BUTCHER
12-19-90	3443	605J 094	JOB SHOP	9-27-90	LYMON BUTCHER
SHIPPED AUG 1989		604J 100	NEVER INSTALLED	89	VERMONT (SCRAPED '90)
MARCH 70?		604J 099	ENGINEERING	ENGINEERING PROTOTYPE	
7-7-90		604J 098	ENGINEERING	7-16-90	JESSE TANNER CLEVELAND, TX (70JIM PETERS)
		604J 097	JOB SHOP	9-27-90	UPDATED TO PRODUCTION BY JOB SHOP
		604J 096		9-27-90	UPDATED TO PRODUCTION BY JOB SHOP
		604J 095	FIELD INSTALLED	9-27-90	UPDATED TO PRODUCTION BY JOB SHOP
NEVER SHIPPED		604J 094			
7-20-90	805	504I 100	ENGINEERING	ENGINEERING PROTOTYPE	
SHIPPED 7-30-90		504I 099	TC VERMEER	7-30-90	ENGLAND TC VERMEER
SHIPPED 7-30-90		504I 098	TC VERMEER	7-30-90	ENGLAND TC VERMEER
SHIPPED 7-30-90		504I 097	TC VERMEER	7-30-90	ENGLAND TC VERMEER
3-29-90	1845	504I 096	ENGINEERING	9-27-90	SALES DEMO

Mat. Desc.					
Mat. Size					
Date					
Part No.			Req'd. Per Model	Req'd. Per Ass'y	Next Assembly
Title					Modul

605J





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